

# HP Cloud Service Automation

For the Windows<sup>®</sup> and Linux operating systems

Software Version: 4.00

## API Reference

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## HP CSA 4.x API Reference Introduction

The APIs for HP Cloud Service Automation use a REST interface. See [http://en.wikipedia.org/wiki/Representational\\_state\\_transfer](http://en.wikipedia.org/wiki/Representational_state_transfer) for general REST information. This documentation assumes that you know how to use REST interfaces.

**Caution:** This document includes information only on the REST APIs provided in CSA 3.x. Information on additional REST APIs that are documented and can be accessed through interactive content can be found in the *HP CSA Cloud Service Automation API Quick Start*.

The base URL for a CSA REST API is `https://<host:port>/csa/rest`, which is appended with the specific URI for the API call. For example, to access the <example> API, you would use the URL: `https://<host:port>/csa/rest/<example>`.

Because XML content passed into or returned by CSA REST API calls can be lengthy, example XML content presented in this document will often be abbreviated to include just the more pertinent XML content.

**Note:** Special or localized characters used in the URL of REST API calls must be encoded before they are sent to the server.

**Tip:** You should only include one value for a Boolean property and the value must be either true or false.

## Artifact API

### Description

Use this API to view, create, and modify CSA artifacts.

### Base URL

`https://<host>:<port>/csa/rest`

### URIs

The following URIs are appended to the base URL:

## Artifact

| URI                                       | Method | Parameters                          | Description   |
|---|--------|-------------------------------------|---|
| /artifact                                 | POST   | userIdentifier                      | <a href="#">"Create an artifact" on page 12</a>                           |
| /artifact/<artifact_id>                   | GET    | userIdentifier, scope, detail, view | <a href="#">"View an artifact" on page 12</a>                             |
| /artifact/<artifact_id>                   | PUT    | userIdentifier, scope, view         | <a href="#">"Update an artifact" on page 15</a>                           |
| /artifact/<artifact_id>                   | DELETE | userIdentifier                      | <a href="#">"Delete an artifact" on page 17</a>                           |
| /artifact/fastview/<artifact_id>          | GET    | userIdentifier, view                | <a href="#">"Retrieve a predefined view for an artifact" on page 18</a>   |
| /artifact/<artifact_id>/resolveProperties | GET    | userIdentifier, propertyName        | <a href="#">"Retrieve resolved properties for an artifact" on page 20</a> |

## Group

| URI  | Method | Parameters     | Description   |
|--|--------|----------------|---|
| /artifact/<organization_id>/group            | GET    | userIdentifier | <a href="#">"List active groups associated with an organization" on page 22</a> |
| /artifact/<organization_id>/group            | POST   | userIdentifier | <a href="#">"Add groups to an organization" on page 23</a>                      |
| /artifact/<organization_id>/group/<group_id> | PUT    | userIdentifier | <a href="#">"Update group display name, distinguished name" on page 25</a>      |
| /artifact/<organization_id>/group/<group_id> | DELETE | userIdentifier | <a href="#">"Delete or disassociate group from an organization" on page 26</a>  |

## Resource Provider

| URI       | Method | Parameters                   | Description  |
|-----------|--------|------------------------------|--|
| /artifact | GET    | userIdentifier, artifactType | <a href="#">"List resource providers" on page 27</a> |

## Service Offering

| URI  | Method | Parameters     | Description   |
|--|--------|----------------|---|
| /artifact/<service_offering_id>/document               | POST   | userIdentifier | "Add document to service offering" on page 28         |
| /artifact/<service_offering_id>/document               | DELETE | userIdentifier | "Delete document from service offering" on page 30    |
| /artifact/<service_offering_id>/document/<document_id> | POST   | userIdentifier | "Update document in service offering" on page 31      |
| /artifact/<catalog_id>/publish                         | POST   | userIdentifier | "Publish service offerings to catalog" on page 31     |
| /artifact/<catalog_id>/unpublish                       | POST   | userIdentifier | "Unpublish service offerings from catalog" on page 33 |

**Note:** You can view information about an artifact with GET /artifact/<artifact\_id> or GET /artifact/fastview/<artifact\_id>. The [fastview API](#) can traverse associations, while the standard artifact API only returns information for the artifact.

## Artifact types

You can work with the following artifact types using the /artifact API. You can use them with the methods marked in the table.

| Artifact type                    | GET | POST | PUT | DELETE |
|----------------------------------|-----|------|-----|--------|
| Approval process                 | X   |      |     |        |
| Approval template                | X   |      |     |        |
| Approver                         | X   |      |     |        |
| Catalog                          | X   | X    | X   | X      |
| Document                         | X   | X    |     | X      |
| Group                            | X   |      |     |        |
| Named approver approval template | X   |      |     |        |
| Organization                     | X   | X    | X   | X      |
| Person                           | X   |      |     |        |
| Resource binding                 | X   |      | X   |        |

| Artifact type         | GET | POST | PUT | DELETE |
|-----------------------|-----|------|-----|--------|
| Resource environment  | X   |      |     |        |
| Resource offering     | X   | X    | X   |        |
| Resource pool         | X   | X    | X   | X      |
| Resource provider     | X   | X    | X   | X      |
| Resource subscription | X   |      | X   |        |
| Service component     | X   | X    | X   | X      |
| Service blueprint     | X   | X    | X   | X      |
| Service instance      | X   |      | X   |        |
| Service offering      | X   | X    | X   | X      |
| Service request       | X   |      |     |        |
| Subscription          | X   |      |     |        |

## Create an artifact

### Details

|            |   |
|------------|---|
| URI        | /artifact   |
| Method     | POST  |
| Parameters | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See " <a href="#">Get userIdentifier</a> " on page 88 for the steps required to get the userIdentifier value. |
| Returns    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## View an artifact

### Details

|        |                         |
|--------|-------------------------|
| URI    | /artifact/<artifact_id> |
| Method | GET                     |

|                   |  |
|-------------------|--|
| <b>URI</b>        | /artifact/<artifact_id>  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone subtree view]<br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned. If the value is <i>vie</i>, then the view parameter is required.</p> <p>detail=[required basic standard template full]<br/>Optional; default is <i>full</i>. See <a href="#">"Values for the detail parameter" on page 139</a></p> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p><b>Note:</b> Some API calls do not support all possible values for this parameter.</p> <p>detail=FULL, even as the default value, is not accepted for organization artifacts because the volume of content returned can be excessively large. Specify detail=BASIC to avoid an exception message.</p> </div> <p>view=&lt;view_type&gt;<br/>Required when value for scope is <i>view</i>; if this parameter is defined, then the value for scope is processed as if its value was <i>view</i>. The default is <i>basicinfo</i>. See <a href="#">"Artifact views" on page 36</a> for a list of view types.</p> |
| <b>Returns</b>    | <p>200 - Ok<br/>401 - Not authorized<br/>500 - Server exception</p>  |

## Examples

Use the following URL:

https://<host>:<port>/csa/rest/artifact/90e72e4f3b00a69e013b0bf7ed55002e?userIde  
ntifier=<user\_id>

The following XML was returned in the response:

```
<ResourceEnvironment>
  <id>90e72e4f3b00a69e013b0bf7ed55002e</id>
  <objectId>90e72e4f3b00a69e013b0bf7ed55002e</objectId>
  <createdOn>2012-11-16T17:24:55.765-08:00</createdOn>
  <updatedOn>2012-11-16T17:24:55.765-08:00</updatedOn>
  <createdBy>
    <id>90d96588360da0c701360da0f1d5f483</id>
    <objectId>90d96588360da0c701360da0f1d5f483</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>admin</name>
    <displayName>admin</displayName>
    <disabled>false</disabled>
```

```

</createdBy>
<updatedBy>
  <id>90d96588360da0c701360da0f1d5f483</id>
  <objectId>90d96588360da0c701360da0f1d5f483</objectId>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <name>admin</name>
  <displayName>admin</displayName>
  <disabled>false</disabled>
</updatedBy>
<isCriticalSystemObject>false</isCriticalSystemObject>
<description>TestEnv</description>
<name>TestEnv_November 17, 2012 1:24:55 AM UTC</name>
<displayName>TestEnv</displayName>
<state>
  <id>90d96588360da0c701360da0ef470038</id>
  <objectId>90d96588360da0c701360da0ef470038</objectId>
  <createdOn>2012-11-01T15:16:54.687-07:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Active</description>
  <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
  <name>ACTIVE</name>
  <displayName>Active</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588360da0c701360da0ef420037</id>
    <objectId>90d96588360da0c701360da0ef420037</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>ARTIFACT_STATE</name>
    <displayName>Artifact State</displayName>
    <extensible>false</extensible>
  </categoryType>
</state>
<artifactType>
  <id>90d96588360da0c701360da0eedb0020</id>
  <objectId>90d96588360da0c701360da0eedb0020</objectId>
  <createdOn>2012-11-01T15:16:57.787-07:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Resource Environment</description>
  <iconUrl>
    /csa/images/categories/artifact_type/resource_environment.png
  </iconUrl>
  <name>RESOURCE_ENVIRONMENT</name>
  <displayName>Resource Environment</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588360da0c701360da0eeb40017</id>
    <objectId>90d96588360da0c701360da0eeb40017</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>ARTIFACT_TYPE</name>

```

```

        <displayName>Artifact Type</displayName>
        <extensible>false</extensible>
    </categoryType>
</artifactType>
<disabled>false</disabled>
<numberOfProvider>0</numberOfProvider>
<numberOfServiceDesign>0</numberOfServiceDesign>
<numberOfCatalog>0</numberOfCatalog>
</ResourceEnvironment>

```

## Update an artifact

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<artifact_id>   |
| <b>Method</b>     | PUT   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.</p> <p>view=&lt;view_type&gt;&amp;scope=view<br/>Optional; Used to update artifacts based on pre-defined views. See <a href="#">Artifact views</a> (description column) for a list of view types that support update operation.</p> <p>&lt;_artifact_property&gt;_action_=merge<br/>Optional; use the <i>merge</i> option with the <i>action</i> meta tag query parameter to update only a portion of the artifact. The <i>action</i> meta tag can either be specified globally for the artifact by including parameter _action_=merge, or for a specific property e.g., _property_values_action_=merge.</p> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>404 - Not found</p> <p>500 - Server exception</p>  |

**Note:** To completely update the artifact, i.e., replace the persistent artifact, do not use the *view* or *merge* parameters and include all artifact content in the request body. Note that if only a portion of the artifact content is sent in the request body, any unspecified content will be removed from the artifact.

To update a portion of the artifact:

- Use a pre-defined view that contains a subset of the artifact properties; only that subset of properties will be updated per the values specified in the request body. See [Artifact views](#) for a list of view types.

- Use the *merge* option as described under Parameters.  
Note: You can use the *merge* option with the *view* parameter to update only the view properties for which you specify values in the request body.

**Note: Collection specific behavior**

When a *merge* option is specified on a collection, for example `_property_values_action_=merge`, all collection items specified in the PUT request body are updated. Any other collection items are left untouched.

For the *property* attribute of an artifact, the items of this collection attribute are matched by name. For all other attributes, the collection items are matched by id.

## Examples

The following examples demonstrate how to update an artifact.

This example shows how to change the finalize flag of a component using the view parameter. The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90e72e4f3af5c989013afb471ebc0264?userIdentifier=&scope=view&view=componentfinalize
```

The following XML was sent in the request body:

```
<ServiceComponent>
  <id>90e72e4f3af5c989013afb471ebc0264</id>
  <toFinalize>false</toFinalize>
</ServiceComponent>
```

This example shows changing the display name of a resource provider. This example does not use the view parameters. To use this approach, retrieve the artifact using GET artifact API, modify the necessary value (in this example - `displayName`), and use that as the body of the PUT request to update the artifact.

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90e72e4f3b00a69e013b0c049ab00033?userIdentifier=<user_id>
```

The following XML was sent in the request body:

```
<ResourceProvider>
  <id>90e72e4f3b00a69e013b0c049ab00033</id>
  <objectId>90e72e4f3b00a69e013b0c049ab00033</objectId>
  <createdOn>2012-11-16T17:38:46.576-08:00</createdOn>
  <updatedOn>2012-11-16T17:38:46.576-08:00</updatedOn>
  <createdBy>
    <id>90d96588360da0c701360da0f1d5f483</id>
    ...
  </createdBy>
```



```

<updatedBy>
  <id>90d96588360da0c701360da0f1d5f483</id>
  ...
</updatedBy>
<isCriticalSystemObject>false</isCriticalSystemObject>
<description>TestProvider</description>
<name>TestProvider_November 17, 2012 1:38:46 AM UTC</name>
<displayName>TestProviderModified</displayName>
<state>
  <id>90d96588360da0c701360da0ef470038</id>
  ...
</state>
<artifactType>
  <id>90d96588360da0c701360da0eed8001f</id>
  ...
</artifactType>
<disabled>false</disabled>
<accessPoint>
  <id>90e72e4f3b00a69e013b0c049a740032</id>
  ...
</accessPoint>
<providerType>
  <id>90d96588360da0c701360da0eeac0016</id>
  ...
</providerType>
<numberOfResourceOffering>0</numberOfResourceOffering>
<numberOfEnvironment>0</numberOfEnvironment>
<numberOfPools>0</numberOfPools>
</ResourceProvider>

```

## Delete an artifact

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<artifact_id>   |
| <b>Method</b>     | DELETE  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See " <a href="#">Get userIdentifier</a> " on page 88 for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

Deletion is subject to a set of business rules which depend on the type of artifact. The business rules for artifacts are explained in the table below. Note that consumption artifacts are not removed from the database when they are deleted; instead, the artifact is marked as retired. Please refer to the ["Catalog API" on page 42](#) for retiring consumption artifacts.

| Artifact type     | Details  |
|-------------------|--|
| Resource provider | Can only be deleted if no active service subscriptions use the resource provider.      |
| Service design    | Can be deleted when all associated service offerings or service instances are retired. |

## Retrieve a predefined view for an artifact

Because the REST API presented here returns content in a different format when retrieving a single result versus multiple results, and could thereby complicate your using the results, it is recommended that the ["View an artifact" on page 12](#) API be used. Performance intensive applications might still choose to use the following API.

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /artifact/fastview/<artifact_id>   |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.<br><br>view=<view_type><br>Required; see <a href="#">"Artifact views" on page 36</a> for a list of view types. |
| <b>Returns</b>    | 200 - Ok<br>404 - Not found<br>500 - Server exception  |

### Examples

The following URL was sent. Note that artifact\_id is the ID of any artifact that has an accesspoint.

```
https://<host>:port/csa/rest/artifact/fastview/90e72e4f3abe4bf4013ac24735730010?  
userIdentifier=<user_id>&view=accesspoint
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<resultView>  
  <resultMap>  
    <entry>
```

```
<key>accessPoint.uri</key>
<value xsi:type="xs:string">http://amz:443</value>
</entry>
<entry>
  <key>accessPoint.password</key>
  <value xsi:type="xs:string">amz</value>
</entry>
<entry>
  <key>accessPoint.username</key>
  <value xsi:type="xs:string">amz</value>
</entry>
<entry>
  <key>accessPoint.category.name</key>
  <value xsi:type="xs:string">URL</value>
</entry>
</resultMap>
</resultView>
```

## Filtering

You can filter the results by providing a value for a property in the URI. The query is then filtered based on that property. You can use the properties listed in ["Artifact views" on page 36](#).

**Note:** The property name that is specified in the URL must have the period (.) character replaced with the underscore (\_) character.

The following example shows the result when the previous example is filtered on a property name.

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/fastview/90e72e4f3b00a69e013b0c049ab0003
?userIdentifier=<user_id>&view=propertyinfo&property_name=propBLN
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<resultView>
  <resultMap>
    <entry>
      <key>property.values.value</key>
      <value xsi:type="xs:string">>true</value>
    </entry>
    <entry>
      <key>property.consumerVisible</key>
      <value xsi:type="xs:boolean">>true</value>
    </entry>
    <entry>
      <key>property.displayName</key>
      <value xsi:type="xs:string">Boolean property</value>
    </entry>
```

```

<entry>
  <key>property.valueType.name</key>
  <value xsi:type="xs:string">BOOLEAN</value>
</entry>
<entry>
  <key>property.name</key>
  <value xsi:type="xs:string">propBLN</value>
</entry>
</resultMap>
</resultView>

```

## Retrieve resolved properties for an artifact

A property can have a source binding configured that indicates its value is to be retrieved from a property on another artifact. The REST API discussed here provides a mechanism to retrieve the value from the source property. As part of this retrieval, relevant tokens configured on properties are also resolved.

There are two approaches to retrieving resolved properties:

- Retrieve all properties
- Retrieve a single named property

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<artifact_id>/resolveProperties   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>propertyName=&lt;property_name&gt;<br/>Optional; the name of the property you want to retrieve. Only retrieves the value for the property specified.</p> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>404 - Not found</p> <p>500 - Server exception</p>  |

### Examples

The following URL was used to retrieve all properties for an artifact:

```
https://<host>:<port>/csa/rest/artifact/<id>/resolveProperties?userIdentifier=<user_id>
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Properties>
  <property> ... </property>
  <property> ... </property>
  <property>
    <id>90d9651a3684c7f0013684cafda80005</id>
    <createdOn>2012-04-05T16:15:57.480-07:00</createdOn>
    <updatedOn>2012-04-05T16:15:57.497-07:00</updatedOn>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>PARENT_SVC_COMPONENT_ID</name>
    <artifact>
      <id>90d9651a3684c7f0013684cafda80008</id>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>TEST_CHILD_COMPONENT</name>
      <disabled>false</disabled>
    </artifact>
    <propertyBindings>
      <id>90d9651a3684c7f0013684cb28820009</id>
      <createdOn>2012-04-05T16:16:08.450-07:00</createdOn>
      <updatedOn>2012-04-05T16:16:08.450-07:00</updatedOn>
      <propertyBindingType>
        <name>SOURCE</name>
        <categoryType>
          <name>PROPERTY_BINDING_TYPE</name>
          ...
        </categoryType>
        ...
      </propertyBindingType>
      <artifact>90d9651a3684c7f0013684c91f8c0004</artifact>
      <artifactPropertyName>SVC_COMPONENT_ID</artifactPropertyName>
    </propertyBindings>
    <scope> ... </scope>
    <valueType> ... </valueType>
    <values>
      <id>90d9651a3684c7f0013684c91f8b0002</id>
      <createdOn>2012-04-05T16:13:55.083-07:00</createdOn>
      <updatedOn>2012-04-05T16:13:55.083-07:00</updatedOn>
      <value>90d9651a3684c7f0013684c91f8c0004</value>
    </values>
    <maxOccurs>0</maxOccurs>
    <minOccurs>0</minOccurs>
    <orderIndex>0</orderIndex>
    <confidential>false</confidential>
    <encrypted>false</encrypted>
    <consumerReadOnly>false</consumerReadOnly>
    <consumerVisible>false</consumerVisible>
  </property>
  <property> ... </property>
  <property> ... </property>
```

```
</Properties>
```

The following URL was used to retrieve a single property:

```
https://<host>:<port>/csa/rest/artifact/<id>/resolveProperties?
userIdentifier=<user_id>&propertyName=PARENT_SVC_COMPONENT_ID
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Properties>
  <property>
    <id>90d9651a3684c7f0013684cafda80005</id>
    <name>PARENT_SVC_COMPONENT_ID</name>
    ...
  </property>
</Properties>
```

## List active groups associated with an organization

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<organization_id>/group   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/8a81818f3d02fb7e013d0308891d0003/group?u
serIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<GroupList>
  <count>1</count>
  <limit>1</limit>
  <group>
    <id>8a81818f3d02fb7e013d030af854000f</id>
```

```
<isCriticalSystemObject>false</isCriticalSystemObject>
<name>sc_February 22, 2013 5:54:43 PM UTC</name>
<displayName>ServiceConsumer1</displayName>
<state>...</state>
<artifactType>...</artifactType>
<disabled>false</disabled>
<distinguishedName>
  cn=ServiceConsumer,ou=ConsumerGroup,ou=CSAGroups
</distinguishedName>
<role>
  ...
</role>
</group>
</GroupList>
```

## Add groups to an organization

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<organization_id>/group   |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See " <a href="#">Get userIdentifier</a> " on page 88 for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

Note that the role must be specified for each group in the request body. Valid roles are as follows.  
For Consumer type organizations:

- SERVICE\_CONSUMER

For Provider type organizations:

- CONSUMER\_SERVICE\_ADMINISTRATOR
- SERVICE\_BUSINESS\_MANAGER
- SERVICE\_DESIGNER
- CSA\_ADMIN
- RESOURCE\_SUPPLY\_MANAGER
- SERVICE\_OPERATIONS\_MANAGER

### Example

The following URL was sent:

`https://<host>:<port>/csa/rest/artifact/8a81818f3d1421e7013d1423635a0003/group?userIdentifier=90d96588360da0c701360da0f1d5f483`

The following XML was sent:

```
<GroupList>
  <group>
    <displayName>My-Group-Name</displayName>
    <distinguishedName>
      cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      <name>SERVICE_CONSUMER</name>
    </role>
  </group>
  <group>
    <displayName>Another-Group-Name</displayName>
    <distinguishedName>
      cn=TestConsumer2,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      <name>SERVICE_CONSUMER</name>
    </role>
  </group>
</GroupList>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<GroupList>
  <count>2</count>
  <limit>2</limit>
  <group>
    <isCriticalSystemObject>>false</isCriticalSystemObject>
    <name>My-Group-Name</name>
    <displayName>My-Group-Name</displayName>
    <disabled>>false</disabled>
    <distinguishedName>
      cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      <isCriticalSystemObject>>false</isCriticalSystemObject>
      <name>SERVICE_CONSUMER</name>
      <disabled>>false</disabled>
    </role>
  </group>
  <group>
    <isCriticalSystemObject>>false</isCriticalSystemObject>
    <name>Another-Group-Name</name>
    <displayName>Another-Group-Name</displayName>
    <disabled>>false</disabled>
```



```
<distinguishedName>
  cn=TestConsumer2,ou=ConsumerGroup,ou=CSAGroups
</distinguishedName>
<role>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <name>SERVICE_CONSUMER</name>
  <disabled>false</disabled>
</role>
</group>
</GroupList>
```

## Update group display name, distinguished name

Use this /artifact URI to update the group display name and/or distinguished name for the specified organization.

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<organization_id>/group/<group_id>  |
| <b>Method</b>     | PUT   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/8a81818f3d02fb7e013d0308891d0003group/8a81818f3d1437e2013d1795d41107ea?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent:

```
<GroupList>
  <group>
    <displayName>My-New-Group-Name</displayName>
    <distinguishedName>
      cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
  </group>
</GroupList>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Group>
  <id>8a81818f3d1437e2013d1795d41107ea</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <name>sc_February 22, 2013 5:54:43 PM UTC</name>
  <displayName>My-New-Group-Name</displayName>
  <state>
    <id>90d96588360da0c701360da0ef470038</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>ACTIVE</name>
    <disabled>false</disabled>
  </state>
  <artifactType>
    <id>90d96588360da0c701360da0eeff002b</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>GROUP</name>
    <disabled>false</disabled>
  </artifactType>
  <disabled>false</disabled>
  <distinguishedName>
    cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
  </distinguishedName>
</Group>
```

## Delete or disassociate group from an organization

Use this URI to delete a group or to disassociate it from an organization. If no organization is associated with this group, the group will be deleted. Otherwise, the group will be disassociated from the specified organization.

### Details

|            |   |
|------------|---|
| URI        | /artifact/<organization_id>/group/<group_id>  |
| Method     | DELETE  |
| Parameters | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| Returns    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/8a81818f3d1421e7013d1423635a0003/group/8a81818f3d1437e2013d1795d41107ea?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<messageList>
  <messages>Removed role association for My-New-Group-Name</messages>
</messageList>
```

## List resource providers

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>artifactType=RESOURCE_PROVIDER<br/>Required; the only valid value is <i>RESOURCE_PROVIDER</i>. Basic view information is provided in the return content.</p> |
| <b>Returns</b>    | <p>200 - Ok<br/>401 - Not authorized<br/>500 - Server exception</p>   |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact?userIdentifier=90d96588360da0c701360da0f1d5f483&artifactType=RESOURCE_PROVIDER
```

The following XML was returned in the response:

```
<ResourceProviderList>
  <count>3</count>
  <limit>0</limit>
  <resourceProvider>
    <id>90e72e583d4c6e77013d4c96b1ab0010</id>
    <objectId>90e72e583d4c6e77013d4c96b1ab0010</objectId>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>Sitescope A</description>
    <name>Sitescope_A_March 9, 2013 12:39:36 AM UTC</name>
    <displayName>Sitescope A</displayName>
    <disabled>false</disabled>
  </resourceProvider>
```

```
...
</ResourceProviderList>
```

## Add document to service offering

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<service_offering_id>/document  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent with headers:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"
- Content-Type: application/octet-stream

```
https://<host>:<port>/csa/rest/artifact/90cef5de3c63429f013c68b8cdda0bad/documen
t?userIdentifier=90cef5de3c63429f013c642c7fc708ab
```

To better demonstrate how to use this REST API URI, the following python script attaches a text file to a service offering. The script was created based on HTML documentation. You can find information on html form content types at: <http://www.w3.org/TR/html401/interact/forms.html#h-17.13.4.2>.

```
""" Sample python script that attaches a text file in the current directory to
an ACTIVE CSA service offering on a local host, with default credentials.
Script usage:
    <scrip-name.py> <service offering uuid> <filename> <admin uuid>
The following example attaches file doc.txt to the service offering with id 90ce
c0773c83a11a013c871e4c1a0503 using an admin user ID
90d96588360da0c701360da0f1d5f483
post-doc.py 90cec0773c83a11a013c871e4c1a0503 doc.txt 90d96588360da0c701360da0f1d
5f483
Tested with: ActivePython 3.2.2.3
"""

from xml.dom.minidom import parse, parseString
from http.client import HTTPSConnection
```

```
from base64 import b64encode
import mimetypes
import sys

def get_content_type(filename):
    return mimetypes.guess_type(filename)[0] or 'application/octet-stream'

def get_file_contents(filename):
    CRLF = '\r\n'
    f = open(filename, 'r')
    return CRLF.join(f.readlines())

def encode_multipart_formdata(filename):
    BOUNDARY = '-----CSA_r0ck$_$'
    CRLF = '\r\n'
    L = []
    L.append('--' + BOUNDARY)
    L.append('Content-Disposition: form-data; name="file"; filename="%s"' % file
name)
    L.append('Content-Type: %s' % get_content_type(filename))
    L.append('')
    L.append(get_file_contents(filename))
    L.append('--' + BOUNDARY + '--')
    L.append('')
    body = CRLF.join(L)
    content_type = 'multipart/form-data; boundary=%s' % BOUNDARY
    return content_type, body

def addDocumentToOffering(offeringId, documentName, userId):
    conn = HTTPSConnection("localhost:8444")
    userAndPass = b64encode(b"admin:cloud").decode("ascii")
    post_url = "/csa/rest/artifact/" + offeringId + "/document?userIdenfier="+
userId
    content_type, body = encode_multipart_formdata(documentName)
    content_length = str(len(body))
    headers = {'Authorization' : 'Basic %s' % userAndPass,
               'Content-Type' : '%s' % content_type, 'content-length' : str(len(b
ody)), 'Accept' : 'application/xml'}
    conn.request('POST', post_url, body, headers=headers)
    res = conn.getresponse()
    data = res.read()
    print(data)

def main(offeringId, documentName, userId):
    addDocumentToOffering(offeringId, documentName, userId)

if __name__ == "__main__":
    offeringId = sys.argv[1]
    documentName = sys.argv[2]
    userId = sys.argv[3]
    main(offeringId, documentName, userId)
```

## Delete document from service offering

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<service_offering_id>/document/<document_id>  |
| <b>Method</b>     | DELETE  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90cef5de3c63429f013c68b8cdda0bad/document/90cef5de3c63429f013c68b8cdda0bad?userIdentifier=90cef5de3c63429f013c642c7fc708ab
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Document>
  <id>90cef5de3c63429f013c68d4146a0bce</id>
  <isCriticalSystemObject> false </isCriticalSystemObject>
  <name>Example Offering Doc.txt</name>
  <state>
    ...
  </state>
  <artifactType>
    ...
  </artifactType>
  <disabled>>false</disabled>
  <url>/csa//document/download?id=90cef5de3c63429f013c68d4146a0bce</url>
  <content>Sample Doc Content</content>
  <mimeType>application/octet-stream</mimeType>
  <documentType>
    ...
  </documentType>
</Document>
```

## Update document in service offering

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<service_offering_id>/document/<document_id>  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent with headers:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"
- Content-Type: application/octet-stream

https://<host>:<port>/csa/rest/artifact/90cec0123ae20db2013ae2111e3e000a/document/90cec0123afffe57013afffec64f0001?userIdentifier=90d96588360da0c701360da0f1d5f483

See ["Add document to service offering" on page 28](#) for a more detailed example.

## Publish service offerings to catalog

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<catlog_id>/publish   |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

## Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90e72e323b5330cc013b5358c0940021/publish  
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<CatalogItems>  
  <catalogItem>  
    <artifactContext>  
      <name>OFFERING1_January 30, 2013 6:18:47 PM UTC</name>  
    </artifactContext>  
    <artifactContextType>  
      <name>SERVICE_OFFERING</name>  
      <categoryType>  
        <name>ARTIFACT_TYPE</name>  
      </categoryType>  
    </artifactContextType>  
    <category>  
      <name>CRM</name>  
      <categoryType>  
        <name>CATALOG_CATEGORY</name>  
      </categoryType>  
    </category>  
  </catalogItem>  
  <catalogItem>  
    <artifactContext>  
      <name>OFFERING2_January 28, 2013 11:32:17 PM UTC</name>  
    </artifactContext>  
    <artifactContextType>  
      <name>SERVICE_OFFERING</name>  
      <categoryType>  
        <name>ARTIFACT_TYPE</name>  
      </categoryType>  
    </artifactContextType>  
    <category>  
      <name>ACCESSORY</name>  
      <categoryType>  
        <name>CATALOG_CATEGORY</name>  
      </categoryType>  
    </category>  
  </catalogItem>  
  <catalogItem>  
    <artifactContext>  
      <name>OFFERING1_January 30, 2013 6:18:47 PM UTC </name>  
    </artifactContext>
```



```
<artifactContextType>
  <name>SERVICE_OFFERING</name>
  <categoryType>
    <name>ARTIFACT_TYPE</name>
  </categoryType>
</artifactContextType>
<category>
  <name>AABBCCDD</name>
  <displayName>AABBCCDD</displayName>
  <categoryType>
    <name>CATALOG_CATEGORY</name>
  </categoryType>
</category>
</catalogItem>
</CatalogItems>
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<messageList>
  <messages> Publish OFFERING1_January 30, 2013 6:18:47 PM UTC to category AABBCCDD failed. Category doesn't exist.</messages>
  <messages> Publish OFFERING2_January 28, 2013 11:32:17 PM UTC to category ACCESSORY succeeded.</messages>
  <messages> Publish OFFERING1_January 30, 2013 6:18:47 PM UTC to category CRM succeeded.</messages>
</messageList>
```

## Unpublish service offerings from catalog

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /artifact/<catlog_id>/unpublish   |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent:

https://<host>:<port>/csa/rest/artifact/90e72e323b5330cc013b5358c0940021/unpublish?userIdentifier=90d96588360da0c701360da0f1d5f483

The following XML was sent in the request:

```
<CatalogItems>
  <catalogItem>
    <artifactContext>
      <name>OFFERING1_January 30, 2013 6:18:47 PM UTC</name>
    </artifactContext>
    <artifactContextType>
      <name>SERVICE_OFFERING</name>
      <categoryType><name>ARTIFACT_TYPE</name></categoryType>
    </artifactContextType>
    <category>
      <name>CRM</name>
      <categoryType>
        <name>CATALOG_CATEGORY</name>
      </categoryType>
    </category>
  </catalogItem>
  <catalogItem>
    <artifactContext>
      <name>OFFERING2_January 28, 2013 11:32:17 PM UTC</name>
    </artifactContext>
    <artifactContextType>
      <name>SERVICE_OFFERING</name>
      <categoryType><name>ARTIFACT_TYPE</name></categoryType>
    </artifactContextType>
    <category>
      <name>AABBCCDD</name>
      <displayName>AABBCCDD</displayName>
      <categoryType><name>CATALOG_CATEGORY</name></categoryType>
    </category>
  </catalogItem>
</CatalogItems>
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<messageList>
  <messages> Unpublish Service Offering OFFERING1_January 30, 2013 6:18:47 PM UTC from category CRM succeeded.</messages>
  <messages> Unpublish Service Offering OFFERING2_January 28, 2013 11:32:17 PM UTC from category AABBCCDD failed. Category doesn't exist.</messages>
</messageList>
```

## Retrieve artifact state and status

### Details

|                     |   |
|---------------------|---|
| <b>URI</b>          | /artifact/state/<artifact_id>   |
| <b>Method</b>       | GET   |
| <b>Parameters</b>   | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See " <a href="#">Get userIdentifier</a> " on <a href="#">page 88</a> for the steps required to get the userIdentifier value. |
| <b>Request Body</b> | None  |
| <b>Return Body</b>  | ArtifactStateInfo   |
| <b>Returns</b>      | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

For all artifacts, possible values for the returned artifactState are:

- ACTIVE
- RETIRED

The following state and status information will be returned for specific artifact types.

For service instance artifacts, state will be returned and will contain one of the following values:

- ACTIVE
- CANCELLED
- CANCELLING
- CANCEL\_FAILED
- DEPLOYING
- EXPIRE\_FAILED
- EXPIRING
- FAILED
- MODIFYING
- MODIFY\_FAILED
- IN\_PROGRESS
- PUBLIC\_ACTION\_FAILED
- RESERVED

For service request artifacts:

- State will be returned and will contain one of the following values:
  - APPROVED
  - CANCELLED
  - COMPLETED
  - IN\_PROGRESS
  - PENDING\_APPROVAL
  - REJECTED
  - SUBMITTED
- Status will be returned. If no value was set a null value will be returned. Otherwise it will contain one of the following values:
  - FAILURE
  - SUCCESS

For service subscription artifacts, status will be returned and will contain one of the following values:

- ACTIVE
- CANCELLED
- EXPIRED
- PAUSED
- PENDING
- TERMINATED

## Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/state/90e72e323ad23bd6013ad23f63da0016?u  
serIdentifier=90d96588360da0c701360da0f1d5f483
```

The following JSON was returned in the response body:

```
{  
  "id": "90e72e323fe4c9ae013fe4def98a0125",  
  "artifactType": "SERVICE_INSTANCE",  
  "artifactState": "ACTIVE""state": "FAILED"  
  "status":null>  
}
```

## Artifact views

Artifact views provide a convenient way to perform retrieve or update actions. When views are used with artifact GET and fastview GET requests, the response includes only the relevant information depending on the type of view requested. When used with PUT requests, the body of the request can include just relevant information, compared to typical PUT requests.

Advantages of Views

- With GET requests, views retrieve only the relevant data for the artifact and avoid loading all the data for the artifact. This leads to better performance.
- With PUT requests, the burden is not on the user to know all the artifact details to update the artifact. The user can pass only the necessary information.
- An example of using views is presented in ["Update an artifact" on page 15](#) (using componentfinalize view).

Note: If you are updating with artifact views, you need to specify all the view's properties.

The following predefined views are available.

| View name   | Properties  | Description  |
|-------------|---|--|
| accesspoint | accessPoint.username<br>accessPoint.password<br>accessPoint.uri<br>accessPoint.category.name  | This retrieves information from the access point object. Any entity that has the accessPoint property should work with this view.  |
| actioninfo  | action.actionState.name<br>action.actionStatus<br>action.errorOnTimeout<br>action.failOnError<br>action.timeout<br>action.processDefinition.name<br>action.consumerVisible<br>action.stateConstraint.lifecycleState.name<br>action.stateConstraint.lifecycleSubstate.name | Retrieves the properties for the action object in addition to all the basicinfo and propertyinfo properties. Note: If the intention is to update an existing action, then action.id must be specified. |

| View name          | Properties  | Description  |
|--------------------|---|--|
| artifactinfo       | state.name<br>artifactType.name<br>disabled<br>ownedBy.name   | Retrieves the required properties from an artifact object in addition to all the basicinfo properties.                               |
| basicinfo          | id<br>name<br>displayName<br>description<br>iconUrl<br>detailedDescription<br>isCriticalSystemObject  | Retrieves information from any Identity object. All artifacts and some additional entities (e.g., accessPoint) are identity objects. |
| candidatepools     | resourceBinding.candidateProvider.candidatePool.id<br>resourceBinding.candidateProvider.candidatePool.objectId<br>resourceBinding.candidateProvider.candidatePool.isCriticalSystemObject<br>resourceBinding.candidateProvider.candidatePool.name<br>resourceBinding.candidateProvider.candidatePool.displayName<br>resourceBinding.candidateProvider.candidatePool.disabled<br>resourceBinding.candidateProvider.candidatePool.useProviderEnv | Use this view to retrieve candidate resource provider pools for a given resource binding.  |
| candidateproviders | resourceBinding.candidateProvider.resourceProvider.id<br>resourceBinding.candidateProvider.resourceProvider.objectId<br>resourceBinding.candidateProvider.resourceProvider.isCriticalSystemObject<br>resourceBinding.candidateProvider.resourceProvider.name<br>resourceBinding.candidateProvider.resourceProvider.displayName<br>resourceBinding.candidateProvider.resourceProvider.disabled   | Use this view to retrieve candidate resource providers for a given resource binding.   |

| View name          | Properties  | Description  |
|--------------------|---|--|
| componentchild     | componentChild.name<br>componentChild.displayName<br>componentChild.description<br>componentChild.iconUrl<br>componentChild.detailedDescription<br>componentChild.isCriticalSystemObject<br>componentChild.ownedBy.name<br>componentChild.state.name<br>componentChild.artifactType.name<br>componentChild.disabled<br>componentChild.serviceInstance.id<br>componentChild.componentType.name<br>componentChild.lifecycleProperties.lifecycleState.name<br>componentChild.lifecycleProperties.lifecycleSubstate.name<br>componentChild.id | Use this view to add/update service components from the parent service component.                |
| componentfinalize  | toFinalize  | Use this view to change the finalize flag for a component.                                       |
| componentlifecycle | lifecycleProperties.lifecycleState.name<br>lifecycleProperties.lifecycleSubstate.name   | Use this view to change the lifecycle state and substate for a component.                        |
| componentroot      | componentRoot.name<br>componentRoot.displayName<br>componentRoot.description<br>componentRoot.iconUrl<br>componentRoot.detailedDescription<br>componentRoot.isCriticalSystemObject<br>componentRoot.ownedBy.name<br>componentRoot.state.name<br>componentRoot.artifactType.name<br>componentRoot.disabled<br>componentRoot.serviceInstance.id<br>componentRoot.componentType.name<br>componentRoot.lifecycleProperties.lifecycleState.name<br>componentRoot.lifecycleProperties.lifecycleSubstate.name<br>componentRoot.id                | Use this view to add a root service component to a ServiceBlueprint or a ServiceInstance object. |

| View name           | Properties  | Description   |
|---------------------|---|---|
| disabledesign       | ServiceBlueprint.disabled   | Use this view to enable or disable a ServiceBlueprint.  |
| propertyinfo        | property.name<br>property.values.value<br>property.valueType.name<br>property.consumerVisible<br>property.displayName   | Retrieves a list of all the properties. Used for creating new properties.                     |
| propertyvalue       | property.name<br>property.values.value<br>property.consumerVisible<br>property.displayName  | This view is useful if the need is only to update a property value.                           |
| resourcebindinginfo | resourceBinding.isCriticalSystemObject<br>resourceBinding.state.name<br>resourceBinding.artifactType.name<br>resourceBinding.disabled<br>resourceBinding.bindingState.name<br>resourceBinding.resourceOffering.name<br>resourceBinding.lifeCycleProperties.lifecycleState.name<br>resourceBinding.lifeCycleProperties.lifecycleSubstate.name<br>resourceBinding.resourceProvider.name | Use this view to create/update a Resource Binding.  |
|                     |   |   |
| validproviders      | resourceBinding.id<br>resourceBinding.validProvider.resourceBinding.id<br>resourceBinding.validProvider.resourceProvider.id   | Use this view to retrieve or to update valid resource providers for a given resource binding. |



| View name           | Properties  | Description  |
|---------------------|---|--|
| validproviderspools | resourceBinding.id<br>resourceBinding.validProvider.resourceBinding.id<br>resourceBinding.validProvider.resourceProvider.id<br>resourceBinding.validProvider.validPool.id | Use this view to update valid resource providers and valid resource provider pools for a given resource binding. |

## Availablevalues API

### Description

Use this API to retrieve the list of available values for a dynamic property.

### Base URL

https://<host>:<port>/csa/rest

### Details

|                     |  |
|---------------------|--|
| <b>URI</b>          | /availablevalues/<property_id><br><i>property_id</i> is an option model property, and is part of service design, offering and subscription artifacts.  |
| <b>Method</b>       | POST   |
| <b>Parameters</b>   | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.   |
| <b>Request Body</b> | Ampersand (&) separated name=value pairs, where the value on the left side of the equal sign (=) represents the parameter name configured for a dynamic property, and the value on the right side is the value the user selected from the parent property. For example, a request body might contain:<br><i>first=parent1value&amp;countparam=mycount.</i> |

|                |  |
|----------------|--|
| <b>URI</b>     | <code>/availablevalues/&lt;property_id&gt;</code><br><i>property_id</i> is an option model property, and is part of service design, offering and subscription artifacts. |
| <b>Returns</b> | 200 - Ok<br>400 - Not authorized<br>404 - Not found<br>500 - Server exception  |

## Example use context

From the subscriber portal a property is selected from a drop down list. The values of any associated dynamic properties must be spontaneously populated - they are dynamic and therefore cannot be populated in advance.

## Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/availablevalues/90e763a43ddc18e5013ddc2f134c0088  
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following was sent in the request body:

```
first=parent1Value
```

The following response was returned:

```
<Property>  
  <id>90e763a43ddc18e5013ddc2f134c0088</id>  
  <name>child1</name>  
  <displayName>child1</displayName>  
  <dynamicValueEnabled>true</dynamicValueEnabled>  
  <dynamicScriptName>sample_jsp.jsp</dynamicScriptName>  
  <dynamicScriptParameters>  
    first=[CLIENT:parent1]  
  </dynamicScriptParameters>  
  <availableValues>  
    <value>value1</value>  
    <displayName>value1 displayName</displayName>  
    <description>value1 description</description>  
  </availableValues>  
  ...  
</Property>
```

## Catalog API

### Description

Use this API to get information related to CSA catalogs.

## Base URL

https://<host>:<port>/csa/rest

## URIs

The following URIs are appended to the base URL:

### Catalog

A catalog is the collection of services available to a consumer.

| URI                   | Method | Parameters                    | Description                                      |
|-----------------------|--------|-------------------------------|--|
| /catalog              | GET    | userIdentifier, scope, detail | <a href="#">"List catalogs" on page 46</a>       |
| /catalog/<catalog_id> | GET    | userIdentifier, scope, detail | <a href="#">"Get catalog details" on page 48</a> |

### Category

Categories allow you to classify service offerings in a service catalog.

| URI  | Method | Parameters     | Description  |
|--|--------|----------------|--|
| /catalog/<catalog_id>/category               | POST   | userIdentifier | <a href="#">"Create catalog categories" on page 49</a> |
| /catalog/<catalog_id>/category/<category_id> | PUT    | userIdentifier | <a href="#">"Update catalog categories" on page 51</a> |
| /catalog/<catalog_id>/category/<category_id> | DELETE | userIdentifier | <a href="#">"Delete catalog category" on page 52</a>   |

### Offering

An offering allows you to define service designs that are published to a service catalog.

| URI  | Method | Parameters                                 | Description  |
|--|--------|--|--|
| /catalog/<catalog_id>/offering               | GET    | userIdentifier, scope, detail, hasApproval | <a href="#">"List offerings in the catalog" on page 53</a> |
| /catalog/<catalog_id>/offering/<offering_id> | GET    | userIdentifier, scope, detail              | <a href="#">"Get offering details" on page 54</a>          |

## Request

A request is created whenever a user initiates, changes, or deletes a subscription.

| URI   | Method | Parameters                               | Description   |
|---|--------|--|---|
| /catalog/<catalog_id>/request                     | GET    | userIdentifier, scope, detail, submitter | <a href="#">"List requests in the catalog" on page 55</a> |
| /catalog/<catalog_id>/request                     | POST   | userIdentifier                           | <a href="#">"Submit a request" on page 57</a>             |
| /catalog/<catalog_id>/request/<request_id>        | GET    | userIdentifier, scope, detail            | <a href="#">"Get request details" on page 59</a>          |
| /catalog/<catalog_id>/request/<request_id>/cancel | GET    | userIdentifier                           | <a href="#">"Cancel a request" on page 62</a>             |
| /catalog/<catalog_id>/request/<request_id>        | DELETE | userIdentifier                           | <a href="#">"Retire a request" on page 62</a>             |

## Approval

An approval is created when the approval manager approves a request.

| URI   | Method | Parameters   | Description   |
|---|--------|--|---|
| /catalog/<catalog_id>/approval                        | GET    | userIdentifier, scope, detail, approver, returnRetired | <a href="#">"List approvals in the catalog" on page 63</a>                              |
| /catalog/<catalog_id>/approval/<approval_id>          | GET    | userIdentifier, scope, detail                          | <a href="#">"Get approval details" on page 64</a>                                       |
| /catalog/<catalog_id>/approval/<approval_id>          | PUT    | userIdentifier   | <a href="#">"Update approval decision using an external approval system" on page 64</a> |
| /catalog/<catalog_id>/approval/<approval_id>          | DELETE | userIdentifier   | <a href="#">"Retire an approval" on page 74</a>   |
| /catalog/<catalog_id>/approval/<approval_id>/approver | PUT    | userIdentifier   | <a href="#">"Update approval decision using CSA approval process" on page 65</a>        |

## Approval policy

| URI   | Method | Parameters     | Description   |
|---|--------|----------------|---|
| /catalog/<catalog_id>/policy/<policy_id>/setCatalogApprovalPolicy | POST   | userIdentifier | <a href="#">"Update catalog approval policies" on page 67</a>         |
| /catalog/<catalog_id>/policy/<policy_id>/setSOApprovalPolicy      | POST   | userIdentifier | <a href="#">"Update service offerings approval policy" on page 68</a> |

## Subscription

A subscription is created when a consumer requests a service offering and includes all of the options selected by the consumer when the subscription was initiated.

| URI  | Method | Parameters                               | Description  |
|--|--------|--|--|
| /catalog/<catalog_id>/subscription                   | GET    | userIdentifier, scope, detail, requestor | <a href="#">"List subscriptions in the catalog" on page 70</a> |
| /catalog/<catalog_id>/subscription/<subscription_id> | GET    | userIdentifier, scope, detail            | <a href="#">"Get subscription details" on page 71</a>          |

## Resource Subscription

| URI  | Method | Parameters                    | Description  |
|--|--------|-------------------------------|--|
| /catalog/<catalog_id>/resourceSubscription | GET    | userIdentifier, scope, detail | <a href="#">"Get resource subscription details" on page 75</a> |

## Instance

An instance is created when a request is approved and includes details about the requested services such as the status of services, IP addresses, etc.

| URI   | Method | Parameters                               | Description  |
|---|--------|--|--|
| catalog/<catalog_id>/instance               | GET    | userIdentifier, scope, detail, requestor | <a href="#">"List instances in the catalog" on page 73</a> |
| catalog/<catalog_id>/instance/<instance_id> | GET    | userIdentifier, scope, detail            | <a href="#">"Get instance details" on page 74</a>          |

# List catalogs

## Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog   |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p><b>userIdentifier=&lt;user_id&gt;</b><br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p><b>scope=[base baseplusone subtree]</b><br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.</p> <p><b>detail=[required basic standard template full]</b><br/>Optional; default is <i>basic</i>. See <a href="#">"Values for the detail parameter" on page 139</a>. Some API calls do not support all possible values for this parameter.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception   |

## Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog  
?userIdentifier=90d9652b35f46a930135f35b327e00a0&scope=base&detail=basic
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<CatalogList>  
  <count>12</count>  
  <limit>0</limit>  
  <catalog>  
    <id>402895e566cb32ss0136cb831752000f</id>  
    <objectId>402895e566cb32ss0136cb831752000f</objectId>  
    <createdOn>2012-04-19T09:23:04.913-06:00</createdOn>  
    <updatedOn>2012-04-19T09:23:04.913-06:00</updatedOn>  
    <isCriticalSystemObject>false</isCriticalSystemObject>  
    <description>Default catalog for the organization.</description>  
    <name>consumer_catalog_a</name>  
    <displayName>Consumer Catalog A</displayName>
```

```
<state>
  <id>90d96588364da0c701370da0ss320037</id>
  <objectId>90d96588364da0c701370da0ss320037</objectId>
  <createdOn>2012-04-19T09:22:25.943-06:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Active</description>
  <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
  <name>ACTIVE</name>
  <displayName>Active</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588364da0c701370da0ss320038</id>
    <objectId>90d96588364da0c701370da0ss320038</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>ARTIFACT_STATE</name>
    <displayName>Artifact State</displayName>
    <extensible>false</extensible>
  </categoryType>
</state>
<artifactType>
  <id>90d96588364da0c701370da0ss320039</id>
  <objectId>90d96588364da0c701370da0ss320039</objectId>
  <createdOn>2012-04-19T09:22:26.050-06:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Catalog</description>
  <iconUrl>/csa/images/categories/artifact_type/catalog.png</iconUrl>
  <name>CATALOG</name>
  <displayName>Catalog</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588364da0c701370da0ss320030</id>
    <objectId>90d96588364da0c701370da0ss320030</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>ARTIFACT_TYPE</name>
    <displayName>Artifact Type</displayName>
    <extensible>false</extensible>
  </categoryType>
</artifactType>
<disabled>false</disabled>
</catalog>
<catalog>
  ...
</catalog>
...
</CatalogList>
```

## Get catalog details

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog/<catalog_id><br>Use <a href="#">"List catalogs" on page 46</a> to get the catalog ID.   |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone subtree]<br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.</p> <p>detail=[required basic standard template full]<br/>Optional; default is <i>full</i>. See <a href="#">"Values for the detail parameter" on page 139</a>.<br/>Some API calls do not support all possible values for this parameter.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception  |

### Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog/402895e566cb32ss0136cb831752000f  
?userIdentifier=90d9652b35f46a930135f35b327e00a0&scope=base&detail=required
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<Catalog>  
  <id>402895e345cb67dd0136ss331752000f</id>  
  <objectId>402895e345cb67dd0136ss331752000f</objectId>  
  <isCriticalSystemObject>false</isCriticalSystemObject>  
  <name>Catalog_Consumer_A</name>  
  <displayName>Consumer Catalog A</displayName>  
  <state>  
    <id>90d96567360da0c701360ss0ef470038</id>  
    <objectId>90d96567360da0c701360ss0ef470038</objectId>  
    <isCriticalSystemObject>true</isCriticalSystemObject>
```



```

<name>ACTIVE</name>
<displayName>Active</displayName>
<disabled>false</disabled>
<categoryType>
  <id>90d67588360da0c701360ss0ef420037</id>
  <objectId>90d67588360da0c701360ss0ef420037</objectId>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <name>ARTIFACT_STATE</name>
  <displayName>Artifact State</displayName>
  <extensible>false</extensible>
</categoryType>
</state>
<artifactType>
  <id>90d96586760da0c701360da0ssd2001d</id>
  <objectId>90d96586760da0c701360da0ssd2001d</objectId>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <name>CATALOG</name>
  <displayName>Catalog</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d67588360da0c701360da0ssb40017</id>
    <objectId>90d67588360da0c701360da0ssb40017</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>ARTIFACT_TYPE</name>
    <displayName>Artifact Type</displayName>
    <extensible>false</extensible>
  </categoryType>
</artifactType>
<disabled>false</disabled>
</Catalog>

```

## Create catalog categories

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_id>/category  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

In the request body:

- Any category specified in the request body that already exists will be left unchanged.
- displayName is required.
- iconUrl and description are optional, and will be set to null if not specified.

## Example

The following URL was sent to create an approval policy with two named approvers:

```
https://<host>:<port>/csa/rest/catalog/90e72e323c88421f013c8d7fad120076/category
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<Catalog>
  <catalogCategory>
    <displayName>Example first Catalog Category</displayName>
    <iconUrl>/catalog/category/x.png</iconUrl>
    <description>description for catalog category</description>
  </catalogCategory>
  <catalogCategory>
    <displayName>Example second category</displayName>
  </catalogCategory>
</Catalog>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Catalog>
  <id>8a81818f3d02fb7e013d0308894a0004</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>Default catalog for the organization.</description>
  <iconUrl>
    /csa/images/library/briefcase-consumer_default_img-60.png
  </iconUrl>
  <name>Catalog_QA_ORG</name>
  <displayName>QA Org Catalog</displayName>
  ...
  <catalogCategory> ... </catalogCategory>
  ...
  <catalogCategory>
    <id>8a81818f3d128500013d1341a5d3000e</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>EXAMPLE_SECOND_CATEGORY</name>
    <displayName>Example second category</displayName>
    <disabled>false</disabled>
  </catalogCategory>
  <catalogCategory> ... </catalogCategory>
  ...
  <catalogCategory>
    <id>8a81818f3d128500013d1341a5c6000d</id>
```

```
<isCriticalSystemObject>false</isCriticalSystemObject>
<description>description for catalog category</description>
<iconUrl>/catalog/category/x.png</iconUrl>
<name>EXAMPLE_FIRST_CATALOG_CATEGORY</name>
<displayName>Example first Catalog Category</displayName>
<disabled>false</disabled>
</catalogCategory>
<catalogCategory> ... </catalogCategory>
...
</Catalog>
```

## Update catalog categories

### Details

|            |   |
|------------|---|
| URI        | /catalog/<catalog_id>/category/<category_id>  |
| Method     | PUT   |
| Parameters | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| Returns    | 200 - Ok (Indicates the REST call executed without error. See XML return content for details on categories updated.)<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception                |

Note that any CatalogCategory elements not specified in the request body will be left unchanged.

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d02fb7e013d0308894a0004/
category/8a81818f3d128500013d1341a5c6000d
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<CatalogCategory>
  <displayName>Changing first example category name</displayName>
  <iconUrl>/catalog/category/x.png</iconUrl>
  <description>New description for first example category</description>
</CatalogCategory>
```

The following XML was returned:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Catalog>
  <id>8a81818f3d02fb7e013d0308894a0004</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>Default catalog for the organization.</description>
  <iconUrl>
    /csa/images/library/briefcase-consumer_default_img-60.png
  </iconUrl>
  <name>Catalog_QA_ORG</name>
  <displayName>QA Org Catalog</displayName>
  ...
  <catalogCategory> ... </catalogCategory>
  ...
  <catalogCategory>
    <id>8a81818f3d128500013d1341a5c6000d</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>description for catalog category</description>
    <iconUrl>/catalog/category/x.png</iconUrl>
    <name>CHANGING_FIRST_EXAMPLE_CATEGORY_NAME</name>
    <displayName>Changing first example category name</displayName>
    <disabled>false</disabled>
  </catalogCategory>
  ...
</Catalog>

```

## Delete catalog category

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_id>/category/<category_id>  |
| <b>Method</b>     | DELETE  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok (Indicates the REST call executed without error. See XML return content for details on category deleted.)<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception                  |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d02fb7e013d0308894a0004/  
category/8a81818f3d128500013d1341a5c6000d  
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The XML return content is basic catalog information as returned with the POST and PUT methods and most notably, will not include the category just deleted.

## List offerings in the catalog

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog/<catalog_id>/offering<br>Use <a href="#">"List catalogs" on page 46</a> to get the catalog ID.  |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base view]<br/>Optional; default is <i>base</i>.</p> <p>detail=basic<br/>Optional; The only valid value is <i>basic</i>.</p> <p>hasApproval=[true false]<br/>Optional; default is <i>false</i>. If <i>true</i>, then hasApproval attribute is returned. If <i>false</i>, then the attribute is not returned.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception   |

### Examples

The following URL was sent to get a list of offerings in a catalog using the default values for scope (base) and detail (basic):

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006boffering?  
userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<ServiceOfferingList>  
  <count>3</count>  
  <limit>0</limit>  
  <ServiceOffering
```

```

<id>90e763db3dd1a9a4013dd1e16aa16c95</id>
<objectId>90e763db3dd1a9a4013dd1e16aa16c95</objectId>
<createdOn>2013-04-03T14:50:43.873-07:00</createdOn>
<updatedOn>2013-04-03T14:50:43.873-07:00</updatedOn>
<isCriticalSystemObject>false</isCriticalSystemObject>
<description>3 Level Option for testing service offerings Integration Servic
e Offering</description>
</artifactType>
<serviceBlueprint>
<detailedDescription>3 Level Option for testing service offerings Integratio
n Service Offering</detailedDescription>
<iconUrl>/csa/images/library/compliance.png</iconUrl>
<name>ServiceOffering for ApprovalPolicy</name>
<displayName>ServiceOffering for ApprovalPolicy</displayName>
<state> ... </state>
<artifactType> ... </artifactType>
<disabled>false</disabled>
<offeringState> ... </offeringState>
</ServiceOffering>
<ServiceOffering> ... </ServiceOffering>
<ServiceOffering> ... </ServiceOffering>
</ServiceOfferingList>

```

## Get offering details

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_id>/offering/<offering_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/offering</a> to get the offering ID.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p> <b>userIdentifier=&lt;user_id&gt;</b><br/>           Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.         </p> <p> <b>scope=[base baseplusone subtree]</b><br/>           Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.         </p> <p> <b>detail=[required basic standard template full]</b><br/>           Optional; default is <i>full</i>. See <a href="#">Values for the detail parameter</a>. Some API calls do not support all possible values for this parameter.         </p> |

|                |   |
|----------------|---|
| <b>URI</b>     | /catalog/<catalog_id>/offering/<offering_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/offering</a> to get the offering ID. |
| <b>Returns</b> | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/  
offering/402895e337326d300137327ce1e30074  
?userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<ServiceOffering>  
  <id>402895e337326d300137327ce1e30074</id>  
  <objectId>402895e337326d300137327ce1e30074</objectId>  
  <createdOn>2012-05-09T10:44:34.147-06:00</createdOn>  
  <updatedOn>2012-05-09T11:48:26.170-06:00</updatedOn>  
  ...  
</ServiceOffering>
```

## List requests in the catalog

### Deprecation Notice

The GET /catalog/<catalog\_id>/request URI has been deprecated. Use URI /user/myrequest instead as using the deprecated URI will not allow viewing requests created by users who previously had access to the catalog, but no longer have access.

### Details

|               |  |
|---------------|--|
| <b>URI</b>    | /catalog/<catalog_id>/request<br>Use <a href="#">"List catalogs" on page 46</a> to get the catalog ID. |
| <b>Method</b> | GET  |

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog/<catalog_id>/request<br>Use " <a href="#">List catalogs</a> " on page 46 to get the catalog ID.   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "<a href="#">Get userIdentifier</a>" on page 88 for the steps required to get the userIdentifier value.</p> <p>scope=[base view]<br/>Optional; default is <i>base</i>.</p> <p>detail=basic<br/>Optional; The only valid value is <i>basic</i>.</p> <p>submitter=&lt;user_name&gt;<br/>Required; user name must be valid and must be authorized to view the request.</p> <p>returnRetired=[true false]<br/>Optional; default is <i>false</i>.</p> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>500 - Server exception</p>  |

## Examples

The following URL was sent:

```
https://localhost:8444/csa/rest/catalog/8a8181853810699a0138106dcebc0011/request/?userIdentifier=8a8181853810699a01381076be5400a0
```

The following XML was returned in the response:

```
<ServiceRequestList>
  <count>21</count>
  <limit>0</limit>
  <ServiceRequest>
    <id>8a8181853810699a01381079190800a7</id>
    <objectId>8a8181853810699a01381079190800a7</objectId>
    <createdOn>2012-06-21T12:16:08.073-07:00</createdOn>
    <updatedOn>2012-06-21T12:16:50.787-07:00</updatedOn>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>SD2 Offering</description>
    <detailedDescription>desc - SD2 offering</detailedDescription>
    <iconUrl>/csa/images/library/application.png</iconUrl>
    <name>request 1</name>
    <displayName>request 1</displayName>
    <state>
      <id>90d96588360da0c701360da0ef470038</id>
      <objectId>90d96588360da0c701360da0ef470038</objectId>
      <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
```



```

<isCriticalSystemObject>true</isCriticalSystemObject>
<description>Active</description>
<iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
<name>ACTIVE</name>
<displayName>Active</displayName>
<disabled>false</disabled>
<categoryType>
  <id>90d96588360da0c701360da0ef420037</id>
  <objectId>90d96588360da0c701360da0ef420037</objectId>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <name>ARTIFACT_STATE</name>
  <displayName>Artifact State</displayName>
  <extensible>false</extensible>
</categoryType>
</state>
...
</ServiceRequest>
</ServiceRequestList>

```

## Submit a request

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_id>/request<br>Use <a href="#">"List catalogs" on page 46</a> to get the catalog ID.  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

### Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/request?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<ServiceRequest>
  <description>description - request BE </description>
  <name>Request BE - Order server</name>
  <displayName>Request BE</displayName>
  <artifactContext>
    <id>8a8181853824bc1d013824c3ae350078</id>
  </artifactContext>
  <requestedAction>
    <name>ORDER</name>
    <property>
      <name>START_DATE</name>
      <values>
        <value>2012-06-26T10:58:58.233-08:00</value>
      </values>
    </property>
    <property>
      <name>END_DATE</name>
      <values>
        <value>2012-06-30T10:58:58.233-08:00</value>
      </values>
    </property>
    <property>
      <name>SERVICE_NAME</name>
      <values>
        <value>SERVICE_NAME - request BE</value>
      </values>
    </property>
    <property>
      <name>SERVICE_DESCRIPTION</name>
      <values>
        <value>service_desc request BE</value>
      </values>
    </property>
    <property>
      <name>OPTION_MODEL</name>
      <values>
        <optionModel>
          <name>SD2</name>
          <optionSets>
            <name>42FBA7E6-17EF-7B1A-C4DD-0A5CB0246E55</name>
            <options>
              <name>D914556A-6F6A-1BE0-035E-0A5CB021BE9B</name>
              <property>
                <name>INT</name>
                <values>
                  <value>33</value>
                </values>
              </property>
            </options>
          </optionSets>
        </optionModel>
      </values>
    </property>
  </requestedAction>
</ServiceRequest>
```

```

        <name>BOOLEAN</name>
        <values>
            <value>true</value>
        </values>
    </property>
    <property>
        <name>STR</name>
        <values>
            <value>YY</value>
        </values>
    </property>
</options>
</optionSets>
<optionSets>
    <name>D6A80E16-2977-4111-14B9-0A5E5D5B2F56</name>
    <options>
        <name>18CA9979-7C9D-F5AC-06B5-0A5E5D5B3B51</name>
    </options>
</optionSets>
</optionModel>
</values>
</property>
</requestedAction>
</ServiceRequest>

```

The following XML was returned in the response:

```

<ServiceRequest>
    <id>8a818185382a26cc01382abf331c037e</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <disabled>false</disabled>
</ServiceRequest>

```

## Get request details

### Details

|               |   |
|---------------|---|
| <b>URI</b>    | /catalog/<catalog_id>/request/<request_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/request</a> to get the request ID. |
| <b>Method</b> | GET   |

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog/<catalog_id>/request/<request_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/request</a> to get the request ID.  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>         Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone subtree]<br/>         Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.</p> <p>detail=[required basic standard template full]<br/>         Optional; default is <i>full</i>. See <a href="#">Values for the detail parameter</a>. Some API calls do not support all possible values for this parameter.</p> |
| <b>Returns</b>    | 201 - Ok, object returned<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Example

The following URL was sent:

```
https://localhost:8444/csa/rest/catalog/8a8181853810699a0138106dcebc0011/request/8a8181853810699a01381079190800a7/?userIdentifier=8a8181853810699a01381076be5400a0
```

The following XML was returned:

```
<ServiceRequest>
  <id>8a8181853810699a01381079190800a7</id>
  <objectId>8a8181853810699a01381079190800a7</objectId>
  <createdOn>2012-06-21T12:16:08.073-07:00</createdOn>
  <updatedOn>2012-06-21T12:16:50.787-07:00</updatedOn>
  <createdBy>
    <id>8a8181853810699a01381076be5400a0</id>
    <objectId>8a8181853810699a01381076be5400a0</objectId>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>consumer1</name>
    <disabled>false</disabled>
  </createdBy>
  <updatedBy>
    <id>90d96588360da0c701360da0f1d5f483</id>
    <objectId>90d96588360da0c701360da0f1d5f483</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>admin</name>
  </updatedBy>
</ServiceRequest>
```

```
    <displayName>admin</displayName>
    <disabled>false</disabled>
  </updatedBy>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>SD2 Offering</description>
  <detailedDescription>desc - SD2 offering</detailedDescription>
  <iconUrl>/csa/images/library/application.png</iconUrl>
  <name>request 1</name>
  <displayName>request 1</displayName>
  <catalogItem>
    <id>8a8181853810699a01381079202c00d7</id>
    <createdOn>2012-06-21T12:16:09.900-07:00</createdOn>
    <updatedOn>2012-06-21T12:16:09.900-07:00</updatedOn>
    <createdBy>
      <id>8a8181853810699a01381076be5400a0</id>
      <objectId>8a8181853810699a01381076be5400a0</objectId>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>consumer1</name>
      <disabled>false</disabled>
    </createdBy>
    ...
  <priceCategory>
    <id>90d9650a36897af90136897bc93e0016</id>
    <objectId>90d9650a36897af90136897bc93e0016</objectId>
    <createdOn>2012-06-21T11:51:43.633-07:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>SETUP</description>
    <iconUrl>/csa/images/categories/price/setup.png</iconUrl>
    <name>SETUP</name>
    <displayName>SETUP</displayName>
    <disabled>false</disabled>
    <categoryType>
      <id>90d9650a36897af90136897bc7c70014</id>
      <objectId>90d9650a36897af90136897bc7c70014</objectId>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>PRICE_CATEGORY</name>
      <displayName>Price Category</displayName>
      <extensible>false</extensible>
    </categoryType>
  </priceCategory>
  <fixedPrice>3000.0</fixedPrice>
  <unitPrice>0.0</unitPrice>
</basePrice>
</ServiceRequest>
```

## Cancel a request

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | <code>/catalog/&lt;catalog_id&gt;/request/&lt;request_id&gt;/cancel</code><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/request</a> to get the request ID.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <code>userIdentifier=&lt;user_id&gt;</code><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Retire a request

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | <code>/catalog/&lt;catalog_id&gt;/request/&lt;request_id&gt;</code><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/request</a> to get the request ID.  |
| <b>Method</b>     | DELETE  |
| <b>Parameters</b> | <code>userIdentifier=&lt;user_id&gt;</code><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## List approvals in the catalog

### Deprecation Notice

The GET /catalog/<catalog\_id>/approval URI has been deprecated. Use URI /user/myapproval instead as using the deprecated URI will not allow access to new functionality including the ability to list all approvals from all catalogs for a specified approver.

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_id>/approval<br>Use " <a href="#">List catalogs</a> " on page 46 to get the catalog ID.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "<a href="#">Get userIdentifier</a>" on page 88 for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone subtree view]<br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned. If the value is <i>view</i>, then the view parameter is required.</p> <p>detail=[required basic standard template full]<br/>Optional; default is <i>basic</i>. See "<a href="#">Values for the detail parameter</a>" on page 139. Some API calls do not support all possible values for this parameter.</p> <p>approver=&lt;user_name&gt;<br/>Optional; the name of the approver.</p> <p>returnRetired=[true false]<br/>Optional; default is <i>false</i>.</p> <div><b>Caution:</b> The users specified by userIdentifier and approver must be in the same organization.</div> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

## Get approval details

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | <code>/catalog/&lt;catalog_id&gt;/approval/&lt;approval_id&gt;</code><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/approval</a> to get the approval ID.   |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p><code>userIdentifier=&lt;user_id&gt;</code><br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.</p> <p><code>scope=[base baseplusone subtree]</code><br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.</p> <p><code>detail=[required basic standard template full]</code><br/>Optional; default is <i>full</i>. See <a href="#">Values for the detail parameter</a>. Some API calls do not support all possible values for this parameter.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception  |

## Update approval decision using an external approval system

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | <code>/catalog/&lt;catalog_id&gt;/approval/&lt;approval_id&gt;</code><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/approval</a> to get the approval ID.  |
| <b>Method</b>     | PUT   |
| <b>Parameters</b> | <p><code>userIdentifier=&lt;user_id&gt;</code><br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.</p> |



|                |   |
|----------------|---|
| <b>URI</b>     | /catalog/<catalog_id>/approval/<approval_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;catalog_id&gt;/approval</a> to get the approval ID. |
| <b>Body</b>    | ApprovalProcess instance required in request body.  |
| <b>Returns</b> | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Examples

The following URL was sent to approve a subscription request:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/  
approval/65920b6356n204770943t567ss2r1503  
?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<ApprovalProcess>  
  <approvalResult>  
    <name>APPROVED</name>  
  </approvalResult>  
</ApprovalProcess>
```

The following URL was sent to reject a subscription request:

```
https://<host>:<port>/csa/rest/catalog/
```

The following XML was sent in the request:

```
<ApprovalProcess>  
  <approvalResult>  
    <name>REJECTED</name>  
  </approvalResult>  
  <approvalComment>comment</approvalComment>  
</ApprovalProcess>
```

## Update approval decision using CSA approval process

### Details

|               |  |
|---------------|--|
| <b>URI</b>    | /catalog/<catalog_id>/approval/<approval_id>/approver<br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;id&gt;/approval</a> to get the approval ID. |
| <b>Method</b> | PUT  |

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog/<catalog_id>/approval/<approval_id>/approver<br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;id&gt;/approval</a> to get the approval ID.   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value. |
| <b>Body</b>       | ApprovalProcess instance required in request body.   |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception  |

## Examples

The following URL was sent to approve a subscription request:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/
approval/65920b6356n204770943t567ss2r1503/approver
?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Approver>
  <person>
    <userName>approver0@hp.com</userName>
    <organization>
      <name>CSA_CONSUMER</name>
    </organization>
  </person>
  <approverResult>
    <name>APPROVED</name>
  </approverResult>
</Approver>
```

The following URL was sent to reject a subscription request:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/
approval/65920b6356n204770943t567ss2r1503/approver
?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Approver>
  <person>
    <userName>approver0@hp.com</userName>
```

```
<organization>
  <name>CSA_CONSUMER</name>
</organization>
</person>
<approverResult>
  <name>REJECTED</name>
</approverResult>
<approvalComment>comment</approvalComment>
</Approver>
```

## Update catalog approval policies

Use this API to associate an approval policy with the specified catalog.

### Details

|                      |   |
|----------------------|---|
| <b>URI</b>           | /catalog/<catalog_id>/policy/<policy_id>/setCatalogApprovalPolicy<br>Use <a href="#">/catalog</a> to get the catalog ID. Use <a href="#">/organization/&lt;organization_id&gt;/approvalPolicy</a> to get an organization's approval policy IDs. |
| <b>Method</b>        | POST  |
| <b>Parameters</b>    | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.  |
| <b>Response Body</b> | The response body will be an ApprovalPolicyVO of base/full.   |
| <b>Returns</b>       | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d4251ed013d46c2b7f602bc/
policy/8a81818f3d4251ed013d4259f57c0008/setCatalogApprovalPolicy?
userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ApprovalPolicyList>
  <count>2</count>
  <limit>0</limit>
  <approvalPolicy>
```

```

<id>8a81818f3d4251ed013d46cc859002c1</id>
...
<approvalTemplate xsi:type="namedApproverApprovalTemplateV0">
  <id>8a81818f3d4251ed013d46cc31ed02be</id>
  <name>EXAMPLE_APPROVAL_POLICY_March 7, 2013 9:40:19 PM UTC </name>
  ...
  <automaticApproval>false</automaticApproval>
  <automaticPeriodDuration>0</automaticPeriodDuration>
  <minApprovalRequired>0</minApprovalRequired>
  <approvalLevel>1</approvalLevel>
</approvalTemplate>
...
<catalog>
  <id>8a81818f3d4251ed013d46c2b7f602bc</id>
  ...
  <name>SOFTWARE_CATALOG</name>
  ...
</catalog>
</approvalPolicy>
<approvalPolicy>
  <id>8a81818f3d4251ed013d46cc85e402c2</id>
  ...
  <approvalTemplate>
    ...
    <name>USER_CONTEXT_APPROVAL_TEMPLATE_QAORG</name>
    ...
    <automaticApproval>false</automaticApproval>
    <automaticPeriodDuration>0</automaticPeriodDuration>
    <minApprovalRequired>0</minApprovalRequired>
    <approvalLevel>1</approvalLevel>
  </approvalTemplate>
  ...>
  <catalog>
    <id>8a81818f3d4251ed013d46c2b7f602bc</id>
    ...
    <name>SOFTWARE_CATALOG</name>
    ...
  </catalog>
</approvalPolicy>
</ApprovalPolicyList>

```

## Update service offerings approval policy

Use this API to update the approval policy for multiple service offerings published in the specified catalog.

## Details

|                      |  |
|----------------------|--|
| <b>URI</b>           | <code>/catalog/&lt;catalog_id&gt;/policy/&lt;policy_id&gt;/setSOApprovalPolicy</code><br><br>Use <a href="#">/catalog</a> to get the catalog ID. Use <a href="#">/catalog/&lt;catalog_id&gt;/offering</a> to get a catalog's service offering IDs, and <a href="#">/catalog/&lt;catalog_id&gt;/offering/&lt;offering_id&gt;</a> to get a service offering's policy ID. |
| <b>Method</b>        | POST   |
| <b>Parameters</b>    | <code>userIdentifier=&lt;user_id&gt;</code><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">Get userIdentifier</a> for the steps required to get the <code>userIdentifier</code> value.   |
| <b>Request Body</b>  | The request body contains the list of service offering IDs that are to be updated.   |
| <b>Response Body</b> | The response body will be a <code>MessageListVO</code> with success and failure messages.  |
| <b>Returns</b>       | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception   |

## Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d4251ed013d46c2b7f602bc/
policy/8a81818f3d4251ed013d46cc8590012c/setSOApprovalPolicy?
userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request body:

```
<ServiceOfferingList>
  <ServiceOffering>
    <id>8a81818f3d4251ed013d427c75e5005d<id>
  </ServiceOffering>
  <ServiceOffering>
    <id>8a81818f3d4251ed013d427c75e127c3<id>
  </ServiceOffering>
  <ServiceOffering>
    <id>12345<id>
  </ServiceOffering>
</ServiceOfferingList>
```

The following XML was returned:

```

<messageList>
  <messages>Updated approval policy of action of ORDER for service offering with
id 8a81818f3d4251ed013d427c75e5005d </messages>
  <messages>Updated approval policy of action of MODIFY_SUBSCRIPTION for service
offering with id 8a81818f3d4251ed013d427c75e127c3</messages>
  <messages>Failed to set approval policy for service offering with id 12345. Th
e service offering is not found. </messages>
</messageList>

```

## List subscriptions in the catalog

### Deprecation Notice

The GET /catalog/<catalog\_id>/subscription URI has been deprecated. Use URI /user/mysubscription instead as using the deprecated URI will not allow viewing subscriptions created by users who previously had access to the catalog, but no longer have access.

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_id>/subscription<br>Use <a href="#">"List catalogs" on page 46</a> to get the catalog ID.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base view]<br/>Optional; default is <i>base</i>.</p> <p>detail=basic<br/>Optional; The only valid value is <i>basic</i>.</p> <p>requestor=&lt;user_name&gt;<br/>Optional; user name must be valid and must be authorized to view the request.</p> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>500 - Server exception</p>   |

### Examples

The following URL was sent:

```

https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/
subscription?userIdentifier=90d9652b67ss6a930135f35b327e00a0

```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceSubscriptionList>
  <count>6</count>
  <limit>0</limit>
  <ServiceSubscription>
    <id>90d957ea3806fa7e013807acc79000b3</id>
    <iconUrl>/csa/images/library/serviceOfferingDefault58.png</iconUrl>
    <name>MY SR</name>
    <displayName>MY SR</displayName>
    <state>...</state>
    <artifactType>
      <name>SUBSCRIPTION</name>
      ...
    </artifactType>
    <disabled>false</disabled>
    <serviceOffering>...</serviceOffering>
    <subscriptionStatus>...</subscriptionStatus>
    <initiatingServiceRequest>...</initiatingServiceRequest>
    ...
  </ServiceSubscription>
  ...
</ServiceSubscriptionList>
```

# Get subscription details

## Details

|            |   |
|------------|---|
| URI        | /catalog/<catalog_id>/subscription/<subscription_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;id&gt;/subscription</a> to get the subscription ID.   |
| Method     | GET   |
| Parameters | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone subtree]<br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.</p> <p>detail=[required basic standard template full]<br/>Optional; default is <i>full</i>. See <a href="#">Values for the detail parameter</a>. Some API calls do not support all possible values for this parameter.</p> |

|                |   |
|----------------|---|
| <b>URI</b>     | /catalog/<catalog_id>/subscription/<subscription_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;id&gt;/subscription</a> to get the subscription ID. |
| <b>Returns</b> | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/
subscription/90d957ea3806fa7e013807acc79000b3
?userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceSubscription>
  <id>90d957ea3806fa7e013807acc79000b3</id>
  <name>MY SR</name>
  <displayName>MY SR</displayName>
  <optionModel>...</optionModel>
  <serviceInstance>...</serviceInstance>
  <serviceOffering>...</serviceOffering>
  <subscriptionStatus>...</subscriptionStatus>
  <initiatingServiceRequest>...</initiatingServiceRequest>
  <basePrice xsi:type="recurrentPricingV0">...</basePrice>
  <basePrice xsi:type="initialPricingV0">...</basePrice>
  <totalPrice xsi:type="recurrentPricingV0">...</totalPrice>
  <totalPrice xsi:type="initialPricingV0">...</totalPrice>
  <pricingModel>...</pricingModel>
  <associatedRequest>
    <id>90e396c83a4cfd80013a4d06e29702bc</id>
    <name>Test Modify subscription</name>
  </associatedRequest>
  <associatedRequest>
    <id>90e396c83a4cfd80013a4d017e740003</id>
    <name>Test2 Modify subscription</name>
  </associatedRequest>
  ...
</ServiceSubscription>
```



## List instances in the catalog

### Deprecation Notice

The GET /catalog/<catalog\_id>/instance URI has been deprecated. Use URI /user/myinstance instead as using the deprecated URI will not allow viewing instances created by users who previously had access to the catalog, but no longer have access.

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_id>/instance<br>Use " <a href="#">List catalogs</a> " on page 46 to get the catalog ID.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "<a href="#">Get userIdentifier</a>" on page 88 for the steps required to get the userIdentifier value.</p> <p>scope=[base view]<br/>Optional; default is <i>base</i>.</p> <p>detail=basic<br/>Optional; The only valid value is <i>basic</i>.</p> <p>requestor=&lt;user_name&gt;<br/>Optional; user name must be valid and must be authorized to view the request.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

### Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/  
instance?userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned:

```
<ServiceInstanceList>  
  <count>6</count>  
  <limit>0</limit>  
  <ServiceInstance>  
    <id>90d957ea3806fa7e01380f957d11070a</id>  
    <name>MYSO_June 5, 2012 5:19:51 PM UTC</name>
```

```

    <displayName>MYSD</displayName>
    <state></state>
    <serviceInstanceState>...</serviceInstanceState>
    ...
  </ServiceInstance>
  ...
</ServiceInstanceList>

```

## Get instance details

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog/<catalog_id>/instance/<instance_id><br>Use <a href="#">/catalog</a> to get the catalog ID and <a href="#">/catalog/&lt;id&gt;/instance</a> to get the instance ID.  |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>         Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone subtree]<br/>         Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.</p> <p>detail=[required basic standard template full]<br/>         Optional; default is <i>full</i>. See <a href="#">Values for the detail parameter</a>. Some API calls do not support all possible values for this parameter.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception  |

## Retire an approval

### Details

|               |  |
|---------------|--|
| <b>URI</b>    | /catalog/<catalog_idid>/approval/<approval_id> |
| <b>Method</b> | DELETE   |

|                   |   |
|-------------------|---|
| <b>URI</b>        | /catalog/<catalog_idid>/approval/<approval_id>  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> |
| <b>Returns</b>    | <p>200 - Ok<br/>401 - Not authorized<br/>404 - Not found<br/>500 - Server exception</p>   |

**Caution:** The approval is retired regardless of whether it was rejected or approved.

## Get resource subscription details

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /catalog/<catalog_id>/resourceSubscription/<resource_subscription_id>  |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone subtree]<br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the object and its first level children are returned. If value is <i>subtree</i>, then the object and all of its descendants are returned.</p> <p>detail=[required basic standard template full]<br/>Optional; default is <i>full</i>. See <a href="#">"Values for the detail parameter" on page 139</a>. Some API calls do not support all possible values for this parameter.</p> |
| <b>Returns</b>    | <p>200 - Ok<br/>401 - Not authorized<br/>500 - Server exception</p>  |

# Export API

## Description

Use this API to export a supported artifact as a content archive. Supported artifacts include resource environments, resource offerings, service designs, service offerings, and catalogs.

## Base URL

https://<host>:<port>/csa/rest

## Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /export/<artifact_id>   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Bad request<br>404 - Not found<br>500 - Server exception  |

Note that the directory the archive will be downloaded to is defined by the REST client or browser in use.

Artifact archives are structured as following.

- Resource environment archive contains:
  - Resource environment XML
  - Manifest XML
- Resource offering archive contains:
  - Resource offering XML
  - Icons used for customizing resource offering
  - Manifest.XML
- Service design archive contains:
  - Service design XML
  - Resource offering XMLs
  - Icons used for customizing resource offerings and service design
  - Dynamic option JSP files
  - Manifest XML

- Service offering archive contains:
  - Service offering XML
  - Service design XML
  - Resource offering XMLs
  - Icons used for customizing service offering, service design, and resource offerings
  - Dynamic option JSP files
  - Manifest XML
- Catalog archive contains:
  - Catalog XML
  - Service offering XMLs
  - Service design XMLs
  - Resource offering XMLs
  - Resource environment XMLs
  - Icons used for customizing catalog, service offerings, service designs, and resource offerings
  - Dynamic option JSP files
  - Manifest XML
- Component palette archive contains:
  - Component palette XML
  - Service component type XMLs
  - Service component template XMLs
  - Resource offering type XMLs
  - Artifact relationship XMLs
  - Icon used for customizing component palette, service component types and templates
  - Manifest XML

## Example

The following URL was sent to export a catalog:

```
https://<host>:<port>/csa/rest/export/8a81818f3d02fb7e013d0308894a0004  
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following response headers were returned, and include the name of the downloaded archive zip file, CATALOG\_QA\_Org\_Catalog\_8a81818f3d02fb7e013d0308894a0004.zip:

```
Status Code: 200 OK  
Cache-Control: must-revalidate, post-check=0, pre-check=0  
Content-Disposition: attachment;filename="CATALOG_QA_Org_Catalog_8a81818f3d02fb7  
e013d0308894a0004"  
Content-Type: application/zip; charset=UTF-8  
Date: Tue, 26 Feb 2013 00:09:36 GMT  
Expires: 0  
Pragma: public  
Server: Apache-Coyote/1.1  
Transfer-Encoding: chunked  
content-transfer-encoding: binary
```

# Import API

## Description

Use this API to import artifacts from a CSA content archive. CSA archives are created via the export REST API, the content archive tool, or the CSA management console. The import operation imports the primary artifact and all associated artifacts.

## Base URL

`https://<host>:<port>/csa/rest`

## Details

|        |         |
|--------|---------|
| URI    | /import |
| Method | POST    |

|                   |   |
|-------------------|---|
| <b>URI</b>        | /import   |
| <b>Parameters</b> | <p><b>userIdentifier=&lt;user_id&gt;</b><br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p><b>file=&lt;multipart_representation_of_service_offering_zip_file&gt;</b><br/>Required; type 'Multipart/Form-Data' CSA archive zip to be imported. Note that the directory the file will be imported from is defined by the REST client or browser in use. Typically the file parameter will not include a directory path.</p> <p><b>update=[true false]</b><br/>Optional; default is false. If true, any existing artifacts of the same type and with the same name will be overwritten; otherwise the artifacts are created. Cannot be used with <i>updatePreserveExisting</i> parameter.</p> <p><b>updatePreserveExisting=[true false]</b><br/>Optional; default is false. If true, any existing artifacts of the same type with the same name will be preserved (not overwritten) and renamed. Existing references to these artifacts will automatically use the renamed artifacts. New artifacts are created from the archive. Cannot be used with <i>update</i> parameter.</p> <p><b>orgForCatalogImport=&lt;organization_name&gt;</b><br/>Required for import of catalog archive; the name of the organization to be used when creating the imported catalog.</p> <p><b>associateProviders=[true false]</b><br/>Optional; default is false. If true, resource providers in the archive are bound to existing resource offerings and resource environments of the same provider type and display name in the database.</p> <p><b>validateType=[COMPONENT_PALETTE CATALOG SERVICE_OFFERING SERVICE_BLUEPRINT RESOURCE_OFFERING RESOURCE_ENVIRONMENT]</b><br/>Optional; if specified, content archive is verified to be of the specified type.   </p> |
| <b>Returns</b>    | <p>200 - Updated<br/> 400 - Bad request<br/> 404 - Not found<br/> 500 - Server exception</p>  |

**Caution:** Component palette import is an update operation, and so *associateProviders* and *updatePreserveExisting* parameters will be ignored.

The following headers must be set when using this API to upload the content archive:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"
- Content-Type: application/octet-stream

## Example

The following URL was sent to import the contents of the specified archive.

```
https://<host>:<port>/csa/rest/import?userIdentifier=90d96588360da0c701360da0f1d5f483&update=true&file=SERVICE_OFFERING_SO_ONE_90cec2ff3c81b896013c81b8c1780097.zip
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ImportOperationResult>
  <additionalSummaryMessages>
    Service offering SO ONE imported successfully. (Id=90cec2ff3dc1d73b013dc1df0b750028)
  </additionalSummaryMessages>
  <additionalSummaryMessages>
    Service design SD ONE imported successfully. (Id=90cec2ff3dc1d73b013dc1df09db0018)
  </additionalSummaryMessages>
  <importResultRecord>
    ea933ec5-ad7b-42b6-b47c-965ff76f7693
  </importResultRecord>
  <importStatus>SUCCESS</importStatus>
  <importSummary>
    Import of Service offering archive successful.
  </importSummary>
</ImportOperationResult>
```

## Importzip API

### Deprecation Notice

The GET /importzip API has been deprecated. Use /import instead as using the deprecated API will not include new functionality.

### Description

Use this API to import an artifact from a CSA artifact archive. CSA archives are created via the export REST API, the content archive tool, or the CSA management console. The import operation imports the primary artifact and all associated artifacts.

### Base URL

https://<host>:<port>/csa/rest



## Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /importzip  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | <p><b>userIdentifier</b>=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p><b>file</b>=&lt;file_name&gt;<br/>Required; multipart CSA archive zip to be imported. Note that the directory the file will be imported from is defined by the REST client or browser in use. Typically the file parameter will not include a directory path.</p> <p><b>forceCreation</b>=[true false]<br/>Optional; default is false. If true, any existing artifacts of the same type with the same name will be preserved (not overwritten) and renamed. Existing references to these artifacts will automatically use the renamed artifacts. New artifacts are created from the archive. Cannot be used with <i>update</i> parameter.</p> <div style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> <p><b>Caution:</b> Produces same results as <i>updatePreserveExisting</i>. Allows for backward compatibility.</p> </div> <p><b>update</b>=[true false]<br/>Optional; default is false. If true, any existing artifacts of the same type and with the same name will be overwritten; otherwise the artifacts are created. Cannot be used with <i>updatePreserveExisting</i> parameter.</p> <p><b>updatePreserveExisting</b>=[true false]<br/>Optional; default is false. If true, any existing artifacts of the same type with the same name will be preserved (not overwritten) and renamed. Existing references to these artifacts will automatically use the renamed artifacts. New artifacts are created from the archive. Cannot be used with <i>update</i> parameter.</p> <p><b>orgForCatalogImport</b>=&lt;organization_name&gt;<br/>Required for import of catalog archive; the name of the organization to be used when creating the imported catalog.</p> <p><b>associateProviders</b>=[true false]<br/>Optional; default is false. If true, resource providers in the archive are bound to existing resource offerings and resource environments of the same provider type and display name in the database.</p> <p><b>validateType</b>=[COMPONENT_PALETTE   CATALOG   SERVICE_OFFERING   SERVICE_DESIGN   RESOURCE_OFFERING   RESOURCE_ENVIRONMENT]<br/>Optional; if specified, content archive is verified to be of the specified type.</p> |

|                |   |
|----------------|---|
| <b>Returns</b> | 200 - Updated<br>400 - Bad request<br>404 - Not found<br>500 - Server exception |
|----------------|---|

**Caution:** Component palette import is an update operation, and so `associateProviders` and `updatePreserveExisting` parameters will be ignored.

The following headers must be set when using this API to upload the content archive:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"
- Content-Type: application/octet-stream

## Example

The following URL was sent:

```
https://localhost:8444/csa/rest/importzip
?userIdentifier=90d96588360da0c701360da0f1d5f483&file=
SERVICE_DESIGN_Simple_Compute_Linux_90cec2023cc75f8a013cc7643ad00034.zip
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<importMessageList>
  <messages>Service design Simple Compute Linux imported successfully.
(Id=90cec2ff3dd11298013dd1139eb7004f)</messages>
  <messages>Resource offering SA Offering imported successfully.
(Id=90cec2ff3dd11298013dd113992d000d)</messages>
  <messages>Resource offering uCMDB Offering imported successfully.
(Id=90cec2ff3dd11298013dd113977d0008)</messages>
  <messages>Resource offering vCenter Offering imported successfully.
(Id=90cec2ff3dd11298013dd1139a4f0016)</messages>
</importMessageList>
```

## Import\_result API

Use this API to view detailed result information from importing a content archive. See ["Import API" on page 78](#) for details on importing a content archive.

## Base URL

https://<host>:<port>/csa/rest

## Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /import_result/<importResultRecord_id><br>importResultRecord IDs are returned by the <a href="#">"Import API" on page 78</a>  |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.<br><br>format=HTML<br>Optional; returns results as HTML rather than the default XML |
| <b>Returns</b>    | 200 - Ok<br>400 - Bad request<br>404 - Not found<br>500 - Server exception  |

## Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/import_result/ea933ec5-ad7b-42b6-b47c-965ff76f7693
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<ImportResult>
  <importResultLogEntry>
    <limit>0</limit>
    <artifactDescription>SO ONE</artifactDescription>
    <artifactDisplayName>SO ONE</artifactDisplayName>
    <artifactName>
      SO_ONE_February 11, 2013 7:08:05 PM UTC
    </artifactName>
    <artifactType>SERVICE_OFFERING</artifactType>
    <importOperation>Error</importOperation>
  </importResultLogEntry>
  <importResultLogEntry>
    <artifactDescription>SD ONE</artifactDescription>
    <artifactDisplayName>SD ONE</artifactDisplayName>
    <artifactName>SD_ONE_February 11, 2013 7:03:41 PM UTC</artifactName>
    <artifactType>SERVICE_BLUEPRINT</artifactType>
```

```

    <importOperation>Error</importOperation>
  </importResultLogEntry>
  <importSummary>
    Import of Service offering archive successful.
  </importSummary>
  <status>SUCCESS</status>
  <timeOfImport>March 31, 2013 7:19:01 PM UTC</timeOfImport>
  <userInformation>admin</userInformation>
</ImportResult>

```

## Lifecycle engine API

### Description

Use this API to work with lifecycle actions. Base URL

### Base URL

`https://<host>:<port>/csa/rest`

### URIs

The following URIs are appended to the base URL:

| URI                                    | Method | Parameters                           | Description   |
|--|--------|--------------------------------------|---|
| /lifecycleengine                       | GET    | userIdentifier,<br>serviceInstanceId | "Get latest lifecycle execution record for a service instance" on page 86 |
| /lifecycleengine/<lifecycle_action_id> | GET    | userIdentifer                        | "Get details for a lifecycle execution record" below                      |
| /lifecycleengine/execute               | POST   | userIdentifier                       | "Schedule lifecycle transition for service instance" on page 86           |

## Get details for a lifecycle execution record

### Details

|        |  |
|--------|--|
| URI    | /lifecycleengine/<lifecycle_action_id> |
| Method | GET                                    |

|                   |   |
|-------------------|---|
| <b>URI</b>        | /lifecycleengine/<lifecycle_action_id>  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Examples

Use the following URL:

https://<host>:<port>/csa/rest/lifecycleengine/90d96588360da0c701360da0f25400c2?userIdentifier=90s96588670da0c701360da0f1d540a1

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LifecycleExecutionRecord>
  <callbackPending>false</callbackPending>
  <executionState>
    <id>90d96588360da0c701360da0f25400c2</id>
    <objectId>90d96588360da0c701360da0f25400c2</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>READY</name>
    <disabled>false</disabled>
    <categoryType>
      <id>90d96588360da0c701360da0f25200c1</id>
      <objectId>90d96588360da0c701360da0f25200c1</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>LIFECYCLE_EXECUTION_STATE</name>
      <extensible>false</extensible>
    </categoryType>
  </executionState>
  <reverse>false</reverse>
  <serviceInstance>
    <id>90d96588372d758101372d75aeb90087</id>
    <objectId>90d96588372d758101372d75aeb90087</objectId>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <disabled>false</disabled>
  </serviceInstance>
  <targetState>
    <id>90d96588360da0c701360da0f23700bb</id>
    <objectId>90d96588360da0c701360da0f23700bb</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>DEPLOYED</name>
    <disabled>false</disabled>
  </targetState>
</LifecycleExecutionRecord>
```

```

    <categoryType>
      <id>90d96588360da0c701360da0f21300ae</id>
      <objectId>90d96588360da0c701360da0f21300ae</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>LIFECYCLE_STATE</name>
      <extensible>false</extensible>
    </categoryType>
  </targetState>
</LifecycleExecutionRecord>

```

## Get latest lifecycle execution record for a service instance

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /lifecycleengine  |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.<br><br>serviceInstanceId=<service_instance_id><br>Required; the ID of the service instance. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Schedule lifecycle transition for service instance

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /lifecycleengine/execute  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

## Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/lifecycleengine/execute  
?userIdentifier=90s96588670da0c701360da0f1d540a1
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<LifecycleExecutionRequest>  
  <reverse>false</reverse>  
  <serviceComponentId>90d96588372d758101372d75aebb009f</serviceComponentId>  
  <serviceInstanceId>90d96588372d758101372d75aeb90087</serviceInstanceId>  
  <targetStateName>DEPLOYED</targetStateName>  
</LifecycleExecutionRequest>
```

## Login API

### Description

Use this API to provide credentials for CSA REST APIs.

### Base URL

```
https://<host>:<port>/csa/rest
```

### URIs

The following URIs are appended to the base URL:

| URI                                    | Method | Parameters | Description  |
|--|--------|------------|--|
| /login/<organization_name>/<user_name> | GET    | none       | <a href="#">"Get userIdentifier" on the facing page</a>                          |
| /login/<organization_name>/userLookup  | GET    | userName   | <a href="#">"Get userIdentifier for user name with slash" on the facing page</a> |

See ["orgInformation API" on page 110](#) for getting an organization's credentials.

## Get userIdentifier

### Details

|                |   |
|----------------|---|
| <b>URI</b>     | /login/<organization_name>/<user_name><br>Where <organization_name> and <user_name> are your credentials for logging in to HP Cloud Service Automation. If the user name you want to use includes a backslash or forward slash, see <a href="#">"Get userIdentifier for user name with slash" below</a> . |
| <b>Method</b>  | GET   |
| <b>Returns</b> | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

**Note:** Unlike most API calls, the arguments (organization name and user name) are part of the the URL path rather than parameters.

### Examples

To get the userIdentifier, we used the following URL:

https://<host>:<port>/csa/rest/login/MyOrganization/admin

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<person>
  <id>90s96588670da0c701360da0f1d540a1</id> <!-- This is userIdentifier -->
  ... <!-- Remaining XML is not relevant for this example. -->
</person>
```

The value for userIdentifier is the first <id> value returned in the XML.

## Get userIdentifier for user name with slash

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /login/<organization_name>/userLookup   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userName=<user_name><br>Required; the user name you want to use as credentials for CSA. |



|                |   |
|----------------|---|
| <b>URI</b>     | /login/<organization_name>/userLookup   |
| <b>Returns</b> | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception |

## Examples

To get the userIdentifier, we used the following URL:

```
https://<host>:<port>/csa/rest/login/MyOrganization/userLookup  
?userName=admin/domain
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<person>  
  <id>90s96588670da0c701360da0f1d540a1</id> <!-- This is userIdentifier -->  
  ... <!-- Remaining XML is not relevant for this example. -->  
</person>
```

The value for userIdentifier is the first <id> value returned in the XML.

## Notification API

### Description

Use this API to retrieve the notification objects associated with <party\_id>, or to send a notification to users or organizations.

### Base URL

```
https://<host>:<port>/csa/rest
```

### URIs

The following URIs are appended to the base URL:

| URI                            | Method | Parameters                    | Description  |
|--------------------------------|--------|-------------------------------|--|
| /notification/party/<party_id> | GET    | userIdentifier,<br>maxResults | <a href="#">"View list of notification objects" on the facing page</a> |
| /notification/party            | POST   | userIdentifier                | <a href="#">"Send notification" on page 91</a>                         |

## View list of notification objects

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /notification/party/<party_id><br>Where the party ID is the UUID of a person, organization, or group. See <a href="#">How to find a party ID</a> .  |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>maxResults=&lt;n&gt;<br/>Optional; where n is the number of notification objects to return. Notification objects are ordered by createdOn date with most recent first. By default all notification objects will be returned.</p> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>500 - Server exception</p>   |

### Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/notification/party/BFA0DB53DA414B90E04059106D1A24B5?userIdentifier=BFA0DB53DA414B90E04059106D1A24B5
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NotificationList>
  <notification>
    <notifContentBody>Your service subscription for {0} is now active. To view the details or make modifications, go to the {1} and click the Subscriptions tab.</notifContentBody>
    <notifSubject>Your subscription is now active</notifSubject>
    <notificationId>90d957ea3806fa7e01380f95d38d073a</notificationId>
    <recepientId>BFA0DB53DA414B90E04059106D1A24B5</recepientId>
    <recepientName>consumer</recepientName>
    <senderContextArtifactName>CSA_CONSUMER</senderContextArtifactName>
    <senderContextArtifactTypeName>ORGANIZATION</senderContextArtifactTypeName>
    <tokens><tokenSequence>0</tokenSequence><value>my request</value></tokens>
  </notification>
</NotificationList>
```

```
        <tokens><tokenSequence>1</tokenSequence><value>CSA Consumer</value></tokens>
    ens>
    ...
    </notification>
    ...
</NotificationList>
```

## Send notification

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /notification/party/<party_id>  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

### Request body format

```
<Notification>
  <subject>Notification Subject goes in here</subject>
  <contentBody>Enter any text here, optionally including tokens: token0 = {0}.
Token1 = {1}</contentBody>
  <!-- Each recipient must have an id and type. Only PERSON and ORGANIZATION are
valid types. Notifications will be sent to valid recipients and an error message
returned for the invalid ones. Response code 200 OK will be returned if there
is at least one valid recipient.
-->
  <recipient>
    <id>UUID of the recipient</id>
    <type>PERSON</type>
  </recipient>
  <recipient>
    <id>UUID of organization</id>
    <type>ORGANIZATION</type>
  </recipient>
  <!-- tokens must be specified if your contentBody contains tokens. No token
validation is done.
-->
  <tokens>
```

```

        <tokenSequence>0</tokenSequence>
        <value>Token 0 content</value>
    </tokens>
    <tokens>
        <tokenSequence>1</tokenSequence>
        <value>Token 1 content</value>
    </tokens>
</Notification>

```

## Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/notification/party?userIdentifier=90cec3a03a93ef89013a93f07b880001
```

The following XML was sent in the request (note that the second recipient.id is bad):

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Notification>
    <subject>Test Subject</subject>
    <contentBody>Test content body, token0 = {0}. Token1 = {1}</contentBody>
    <recipient>
        <id>90cec3a03a93ef89013a93f07b880001</id>
        <type>PERSON</type>
    </recipient>
    <recipient>
        <id>bad org id</id>
        <type>ORGANIZATION</type>
    </recipient>
    <tokens>
        <tokenSequence>0</tokenSequence>
        <value>Token 0 test content</value>
    </tokens>
    <tokens>
        <tokenSequence>1</tokenSequence>
        <value>Token 1 test content</value>
    </tokens>
</Notification>

```

The following response header status code was returned: 200 OK

The following XML was returned:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NotificationPostResponse>
    <count>1</count>
    <errorMessage>Please enter a valid value for the recipient user id = bad org id</errorMessage>
    <notification>
        <notifContentBody>Test content body, token0 = {0}. Token1 = {1}
    </notification>

```

```
</notifContentBody>
  <notifCreatedOn>2012-11-14T10:25:06.021-07:00</notifCreatedOn>
  <notifSubject>Test Subject</notifSubject>
  <notifactionId>90cec39c3ae64d82013afff3e9c3002c</notifactionId>
</recepientArtifactId>
  90d96588360da0c701360da0ef03002c
</recepientArtifactId>
<recepientArtifactTypeName>PERSON</recepientArtifactTypeName>
<recepientEmailAddr>
  acctgconsumer@econ-csa.com
</recepientEmailAddr>
<recepientId>90cec3a03a93ef89013a93f07b880001</recepientId>
<recepientName>acctgconsumer</recepientName>
<senderContextArtifactId>
  90cec3a03a93ef89013a93f07b880001
</senderContextArtifactId>
<senderContextArtifactTypeId>
  90d96588360da0c701360da0ef03002c
</senderContextArtifactTypeId>
<senderContextArtifactTypeName>
  PERSON
</senderContextArtifactTypeName>
<source>EXTERNAL</source>
<tokens>
  <tokenSequence>1</tokenSequence>
  <value>Token 1 test content</value>
</tokens>
<tokens>
  <tokenSequence>0</tokenSequence>
  <value>Token 0 test content</value>
</tokens>
</notification>
</NotificationPostResponse>
```

## Organization API

### Description

Use this API to view HP CSA organizations.

### Base URL

https://<host>:<port>/csa/rest

### URIs

The following URIs are appended to the base URL:

| URI  | Method | Parameters                             | Description   |
|--|--------|--|---|
| /organization  | GET    | userIdentifier, scope, detail          | "View a list of organizations" <a href="#">below</a><br>Note: The user identified by userIdentifier must have admin access. |
| /organization/<organization_id>                            | GET    | userIdentifier, scope, detail          | "View an organization" on <a href="#">page 97</a>   |
| /organization/<organization_id>/approvalPolicy             | GET    | userIdentifier                         | "List organization's approval policies" on <a href="#">page 100</a>   |
| /organization/<organization_id>/approvalPolicy             | POST   | userIdentifier                         | "Create approval policy" on <a href="#">page 101</a>  |
| /organization/<organization_id>/approvalPolicy/<policy_id> | PUT    | userIdentifier                         | "Update approval policy" on <a href="#">page 105</a>  |
| /organization/<organization_id>/approvalPolicy/<policy_id> | DELETE | userIdentifier                         | "Delete approval policy" on <a href="#">page 107</a>  |
| /organization/accessPoint                                  | GET    | orgName                                | "Retrieve organization LDAP access point information" on <a href="#">page 108</a>   |
| /organization/offering                                     | PUT    | userIdentifier, queryType, newReleases | "List most requested, recently requested, or new offerings" on <a href="#">page 109</a>                                     |

## View a list of organizations

### Details

|        |                |
|--------|----------------|
| URI    | /organization/ |
| Method | GET            |

|                   |   |
|-------------------|---|
| <b>URI</b>        | /organization/  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <div style="background-color: #f0f0f0; padding: 10px; margin: 10px 0;"> <p><b>Note:</b> The user identified by userIdentifier must have admin access.</p> </div> <p>scope=base<br/>Optional; the only valid value is <i>base</i>.</p> <p>detail=basic<br/>Optional; The only valid value is <i>basic</i>.</p> |
| <b>Returns</b>    | <p>200 - Ok<br/>401 - Not authorized<br/>500 - Server exception</p>   |

## Example

The following URL was sent:

```
https://localhost:8444/csa/rest/organization/
?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=base&detail=basic
```

The following XML was returned:

```
<OrganizationList>
  <count>3</count>
  <limit>0</limit>
  <organization>
    <id>8a8181853810699a0138106dcdd00003</id>
    <objectId>8a8181853810699a0138106dcdd00003</objectId>
    <createdOn>2012-06-21T12:03:47.920-07:00</createdOn>
    <updatedOn>2012-06-21T12:04:10.597-07:00</updatedOn>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>desc - CSA organization</description>
    <iconUrl>/csa/images/library/Earth_48.png</iconUrl>
    <name>CSA</name>
    <displayName>CSA</displayName>
    <state>
      <id>90d96588360da0c701360da0ef470038</id>
      <objectId>90d96588360da0c701360da0ef470038</objectId>
      <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <description>Active</description>
      <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
      <name>ACTIVE</name>
      <displayName>Active</displayName>
      <disabled>false</disabled>
    
```

```

    <categoryType>
      <id>90d96588360da0c701360da0ef420037</id>
      <objectId>90d96588360da0c701360da0ef420037</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>ARTIFACT_STATE</name>
      <displayName>Artifact State</displayName>
      <extensible>false</extensible>
    </categoryType>
  </state>
  <artifactType>
    <id>90d96588360da0c701360da0eefc002a</id>
    <objectId>90d96588360da0c701360da0eefc002a</objectId>
    <createdOn>2012-06-21T11:51:43.253-07:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Organization</description>
    <iconUrl>/csa/images/categories/artifact_type/organization.png</iconUr
1>
    <name>ORGANIZATION</name>
    <displayName>Organization</displayName>
    <disabled>false</disabled>
    <categoryType>
      <id>90d96588360da0c701360da0eeb40017</id>
      <objectId>90d96588360da0c701360da0eeb40017</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>ARTIFACT_TYPE</name>
      <displayName>Artifact Type</displayName>
      <extensible>false</extensible>
    </categoryType>
  </artifactType>
  <disabled>false</disabled>
  <partyType>
    <id>90d96588360da0c701360da0eff1005d</id>
    <objectId>90d96588360da0c701360da0eff1005d</objectId>
    <createdOn>2012-06-21T11:51:43.293-07:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Organization</description>
    <iconUrl>/csa/images/categories/party_type/organization.png</iconUrl>
    <name>ORGANIZATION</name>
    <displayName>Organization</displayName>
    <disabled>false</disabled>
    <categoryType>
      <id>90d96588360da0c701360da0efe20059</id>
      <objectId>90d96588360da0c701360da0efe20059</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>PARTY_TYPE</name>
      <displayName>Party Type</displayName>
      <extensible>false</extensible>
    </categoryType>
  </partyType>

```



```
<businessRole>
  <id>90d96588360da0c701360da0f0020061</id>
  <objectId>90d96588360da0c701360da0f0020061</objectId>
  <createdOn>2012-06-21T11:51:43.300-07:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Consumer</description>
  <iconUrl>/csa/images/categories/business_role/consumer.png</iconUrl>
  <name>CONSUMER</name>
  <displayName>Consumer</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588360da0c701360da0effd0060</id>
    <objectId>90d96588360da0c701360da0effd0060</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>BUSINESS_ROLE</name>
    <displayName>Business Role</displayName>
    <extensible>false</extensible>
  </categoryType>
</businessRole>
</organization>
...
</organization>
</OrganizationList>
```

# View an organization

## Details

|            |  |
|------------|--|
| URI        | /organization/<organization_id><br><a href="#">"View a list of organizations" on page 94</a> to get the organization ID.   |
| Method     | GET  |
| Parameters | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base baseplusone]<br/>Optional; default is <i>base</i>. If value is <i>base</i>, then the object is returned. If value is <i>baseplusone</i>, then the base plus the first level children are returned. Note that <i>subtree</i> is <b>not</b> a valid value for this API call.</p> <p>detail=[required basic]<br/>Optional; default is <i>basic</i>. See <a href="#">"Values for the detail parameter" on page 139</a>.</p> |

|                |  |
|----------------|--|
| <b>URI</b>     | /organization/<organization_id><br>"View a list of organizations" on page 94 to get the organization ID. |
| <b>Returns</b> | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception                            |

## Example

The following URL was sent:

```
https://localhost:8444/csa/rest/organization/8a8181853810699a0138106dcdd00003/
?userIdentifier=8a8181853810699a01381076be5400a0
```

The following XML was returned:

```
<Organization>
  <id>8a8181853810699a0138106dcdd00003</id>
  <objectId>8a8181853810699a0138106dcdd00003</objectId>
  <createdOn>2012-06-21T12:03:47.920-07:00</createdOn>
  <updatedOn>2012-06-21T12:04:10.597-07:00</updatedOn>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>desc - CSA organization</description>
  <iconUrl>/csa/images/library/Earth_48.png</iconUrl>
  <name>CSA</name>
  <displayName>CSA</displayName>
  <state>
    <id>90d96588360da0c701360da0ef470038</id>
    <objectId>90d96588360da0c701360da0ef470038</objectId>
    <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Active</description>
    <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
    <name>ACTIVE</name>
    <displayName>Active</displayName>
    <disabled>false</disabled>
    <categoryType>
      <id>90d96588360da0c701360da0ef420037</id>
      <objectId>90d96588360da0c701360da0ef420037</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>ARTIFACT_STATE</name>
      <displayName>Artifact State</displayName>
      <extensible>false</extensible>
    </categoryType>
  </state>
  <artifactType>
    <id>90d96588360da0c701360da0eefc002a</id>
    <objectId>90d96588360da0c701360da0eefc002a</objectId>
    <createdOn>2012-06-21T11:51:43.253-07:00</createdOn>
```

```
<isCriticalSystemObject>true</isCriticalSystemObject>
<description>Organization</description>
<iconUrl>/csa/images/categories/artifact_type/organization.png</iconUrl>
<name>ORGANIZATION</name>
<displayName>Organization</displayName>
<disabled>false</disabled>
<categoryType>
  <id>90d96588360da0c701360da0eeb40017</id>
  <objectId>90d96588360da0c701360da0eeb40017</objectId>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <name>ARTIFACT_TYPE</name>
  <displayName>Artifact Type</displayName>
  <extensible>false</extensible>
</categoryType>
</artifactType>
<disabled>false</disabled>
<partyType>
  <id>90d96588360da0c701360da0eff1005d</id>
  <objectId>90d96588360da0c701360da0eff1005d</objectId>
  <createdOn>2012-06-21T11:51:43.293-07:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Organization</description>
  <iconUrl>/csa/images/categories/party_type/organization.png</iconUrl>
  <name>ORGANIZATION</name>
  <displayName>Organization</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588360da0c701360da0efe20059</id>
    <objectId>90d96588360da0c701360da0efe20059</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>PARTY_TYPE</name>
    <displayName>Party Type</displayName>
    <extensible>false</extensible>
  </categoryType>
</partyType>
<businessRole>
  <id>90d96588360da0c701360da0f0020061</id>
  <objectId>90d96588360da0c701360da0f0020061</objectId>
  <createdOn>2012-06-21T11:51:43.300-07:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Consumer</description>
  <iconUrl>/csa/images/categories/business_role/consumer.png</iconUrl>
  <name>CONSUMER</name>
  <displayName>Consumer</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588360da0c701360da0effd0060</id>
    <objectId>90d96588360da0c701360da0effd0060</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
```

```
        <name>BUSINESS_ROLE</name>
        <displayName>Business Role</displayName>
        <extensible>>false</extensible>
    </categoryType>
</businessRole>
</Organization>
```

# List organization's approval policies

## Details

|            |   |
|------------|---|
| URI        | /organization/<organization_id>/approvalPolicy  |
| Method     | GET   |
| Parameters | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See " <a href="#">Get userIdentifier</a> " on page 88 for the steps required to get the userIdentifier value. |
| Returns    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

## Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/
approvalPolicy?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ApprovalPolicyList>
  <UserContextApprovalTemplate>
    <id>8a81818f3d1421e7013d1423646e0008</id>
    <objectId>8a81818f3d1421e7013d1423646e0008</objectId>
    <createdOn>2013-02-25T17:34:56.623-08:00</createdOn>
    <updatedOn>2013-02-25T17:34:56.627-08:00</updatedOn>
    ...
    <name>USER_CONTEXT_APPROVAL_TEMPLATE_QA_ORG_1</name>
    <displayName>
      QA Org 1 User Context Approval Template
    </displayName>
    <state> ... </state>
    <artifactType> ... </artifactType>
    ...
    <automaticApproval>>false</automaticApproval>
```

```
<automaticPeriodDuration>0</automaticPeriodDuration>
<minApprovalRequired>0</minApprovalRequired>
<approvalType>
  <id>90d96588360da0c701360da0f0b40094</id>
  <objectId>90d96588360da0c701360da0f0b40094</objectId>
  <createdOn>2013-02-25T17:32:55.620-08:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>User Context Template</description>
  <iconUrl>
    /csa/images/categories/approval_type/user_context_template.png
  </iconUrl>
  <name>USER_CONTEXT_TEMPLATE</name>
  <displayName>User Context Template</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588360da0c701360da0f0ac0092</id>
    <objectId>90d96588360da0c701360da0f0ac0092</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>APPROVAL_TYPE</name>
    <displayName>Approval Type</displayName>
    <extensible>false</extensible>
  </categoryType>
</approvalType>
<approvalLevel>1</approvalLevel>
</UserContextApprovalTemplate>
<NamedApproverApprovalTemplate> ... </NamedApproverApprovalTemplate>
<NamedApproverApprovalTemplate> ... </NamedApproverApprovalTemplate>
</ApprovalPolicyList>
```

## Create approval policy

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /organization/<organization_id>/approvalPolicy  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

The types of approval policies supported are: NamedApproverApprovalTemplate, NamedGroupApprovalTemplate, UserContextApprovalTemplate, and DelegatedApprovalTemplate.

In NamedApproverApprovalTemplate request body:

- displayName is required.
- approver is optional.
- minApprovalRequired is optional. If no approver is specified, defaults to 0. If any approver is specified, defaults to 1. Value cannot be greater than the number of approvers specified.
- automaticApproval is optional; if not present, default to false. If automaticApproval is true:
  - automaticPeriodDuration (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
  - automaticApprovalDecision is required; valid value is APPROVED or REJECTED.

Example request body:

```
<NamedApproverApprovalTemplate>
  <displayName>Name Ex Template 03</displayName>
  <approver><userName>consumer</userName></approver>
  ...
  <approver><userName>consumer04</userName></approver>
  <minApprovalRequired>1</minApprovalRequired>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>12</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>REJECTED</name>
  </automaticApprovalDecision>
</NamedApproverApprovalTemplate>
```

In NamedGroupApprovalTemplate request body:

- displayName is required.
- group's distinguishedName is required.
- minApprovalRequired is optional and defaults 1. Value cannot be greater than the number of users in the group.
- automaticApproval is optional; if not present, defaults to false. If automaticApproval is true:
  - automaticPeriodDuration (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
  - automaticApprovalDecision is required; valid value is APPROVED, or REJECTED.

Example request body:

```
<NamedGroupApprovalTemplate>
  <displayName>Name Group Template 01</displayName>
  <group>
    <distinguishedName>
      cn=ServiceConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
  </group>
  <minApprovalRequired>0</minApprovalRequired>
  <automaticApproval>true</automaticApproval>
```

```
<automaticApprovalDecision><automaticApprovalDecision>
  <name>REJECTED</name>
</automaticApprovalDecision>
</NamedGroupApprovalTemplate>
```

In `UserContextApprovalTemplate` request body:

- `displayName` is required.
- `automaticApproval` is optional; if not present, defaults to `false`. If `automaticApproval` is set to `true`:
  - `automaticPeriodDuration` (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
  - `automaticApprovalDecision` is required; valid value is `APPROVED`, or `REJECTED`.

Example request body:

```
<UserContextApprovalTemplate>
  <displayName>User ContextTemplate 01</displayName>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>7</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>APPROVED</name>
  </automaticApprovalDecision>
</UserContextApprovalTemplate>
```

In `DelegatedApprovalTemplate` request body:

- `displayName` is required.
- `processDefinition` is required, `id` is needed.
- `automaticApproval` is optional; if not present, defaults to `false`. If `automaticApproval` is set to `true`:
  - `automaticPeriodDuration` (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
  - `automaticApprovalDecision` is required; valid value is `APPROVED`, or `REJECTED`.

Example request body:

```
<DelegatedApprovalTemplate>
  <displayName>Name Ex Template 03</displayName>
  <processDefinition>
    <id>90d96507362a000a01362a0048bc00ad</id>
  </processDefinition>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>30</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>REJECTED</name>/
  </automaticApprovalDecision>
</DelegatedApprovalTemplate>
```

## Example

The following URL was sent to create an approval policy with two named approvers:

https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/  
approvalPolicy?userIdentifier=90d96588360da0c701360da0f1d5f483

The following XML was sent in the request:

```
<NamedApproverApprovalTemplate>
  <displayName>My-New-Approval-Template</displayName>
  <approver><userName>ProjectManager</userName></approver>
  <approver><userName>BudgetManager</userName></approver>
  <minApprovalRequired>2</minApprovalRequired>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>14</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>APPROVED</name>
  </automaticApprovalDecision>
</NamedApproverApprovalTemplate>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NamedApproverApprovalTemplate>
  <id>8a81818f3d1437e2013d17f249c30a0c</id>
  <objectId>8a81818f3d1437e2013d17f249c30a0c</objectId>
  <createdOn>2013-02-26T11:19:47.397-08:00</createdOn>
  <updatedOn>2013-02-26T11:19:47.440-08:00</updatedOn>
  <createdBy> ... </createdBy>
  <updatedBy> ... </updatedBy>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <name>
    My-New-Approval-Template_February 26, 2013 7:19:47 PM UTC
  </name>
  <displayName>My-New-Approval-Template</displayName>
  <state> ... </state>
  <artifactType>
    <id>90d96588360da0c701360da0eef20027</id>
    <objectId>90d96588360da0c701360da0eef20027</objectId>
    <createdOn>2013-02-25T17:32:55.667-08:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Approval Template</description>
    ...
  </artifactType>
  <ownedBy> ... </ownedBy>
  <disabled>false</disabled>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>14</automaticPeriodDuration>
  <minApprovalRequired>2</minApprovalRequired>
  <approvalType>
    <id>90d96588360da0c701360da0f0b00093</id>
    <objectId>90d96588360da0c701360da0f0b00093</objectId>
    <createdOn>2013-02-25T17:32:55.620-08:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
```



```
    <description>Named Approver Template</description>
    ...
  </approvalType>
  <automaticApprovalDecision> ... </automaticApprovalDecision>
  <approver>
    <id>8a81818f3d1437e2013d17eec74408d8</id>
    ...
    <userName>BudgetManager</userName>
    ...
  </approver>
  <approver>
    <id>8a81818f3d1437e2013d177b13f107dd</id>
    ...
    <userName>ProjectManager</userName>
    ...
  </approver>
</NamedApproverApprovalTemplate>
```

## Update approval policy

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /organization/<organization_id>/approvalPolicy/<policy_id>  |
| <b>Method</b>     | PUT   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/
approvalPolicy/8a81818f3d1437e2013d17f249c30a0c?
userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request. It will change the list of approvers to user ProjectManager, set automaticApproval to false, and set automaticApprovalDecision to REJECTED.

```
<NamedApproverApprovalTemplate>
  <displayName>Updated-My-Approval-Template</displayName>
```

```

<approver><userName>ProjectManager</userName></approver>
<minApprovalRequired>0</minApprovalRequired>
<automaticApproval>false</automaticApproval>
<automaticPeriodDuration>0</automaticPeriodDuration>
<automaticApprovalDecision>
  <name>REJECTED</name>
</automaticApprovalDecision>
</NamedApproverApprovalTemplate>

```

The following XML was returned:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NamedApproverApprovalTemplate>
  <id>8a81818f3d1437e2013d17f249c30a0c</id>
  <objectId>8a81818f3d1437e2013d17f249c30a0c</objectId>
  <createdOn>2013-02-26T11:19:47.397-08:00</createdOn>
  <updatedOn>2013-02-26T11:45:06.900-08:00</updatedOn>
  ...
  <name>
    My-New-Approval-Template_February 26, 2013 7:19:47 PM UTC
  </name>
  <displayName>Updated-My-Approval-Template</displayName>
  ...
  <automaticApproval>false</automaticApproval>
  <automaticPeriodDuration>0</automaticPeriodDuration>
  <minApprovalRequired>1</minApprovalRequired>
  <approvalType>
    <id>90d96588360da0c701360da0f0b00093</id>
    ...
    <name>NAMED_APPROVER_TEMPLATE</name>
    ...
  </approvalType>
  <automaticApprovalDecision>
    <id>90d96588360da0c701360da0f091008c</id>
    ...
    <name>REJECTED</name>
    <displayName>Denied</displayName>
    ...
  </automaticApprovalDecision>
  <approver>
    <id>8a81818f3d1437e2013d177b13f107dd</id>
    ...
    <name>ProjectManager</name>
    ...
    <organization>
      <id>8a81818f3d1421e7013d1423635a0003</id>
      <objectId>8a81818f3d1421e7013d1423635a0003</objectId>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>QA_ORG_1</name>
      <displayName>QA Org 1</displayName>
    </organization>
  </approver>

```

```

        <disabled>false</disabled>
    </organization>
</approver>
</NamedApproverApprovalTemplate>

```

## Delete approval policy

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /organization/<organization_id>/approvalPolicy/<policy_id>  |
| <b>Method</b>     | DELETE  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

### Example

The following URL was sent:

```

https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/
approvalPolicy/8a81818f3d1437e2013d17f249c30a0c?
userIdentifier=90d96588360da0c701360da0f1d5f483

```

The following XML was returned:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NamedApproverApprovalTemplate>
    <id>8a81818f3d1437e2013d17f249c30a0c</id>
    <objectId>8a81818f3d1437e2013d17f249c30a0c</objectId>
    <createdOn>2013-02-26T11:19:47.397-08:00</createdOn>
    <updatedOn>2013-02-26T11:45:06.900-08:00</updatedOn>
    ...
    <name>
        My-New-Approval-Template_February 26, 2013 7:19:47 PM UTC
    </name>
    <displayName>Updated-My-Approval-Template</displayName>
    <state>
        <id>90d96588360da0c701360da0ef4b0039</id>
        <objectId>90d96588360da0c701360da0ef4b0039</objectId>
        <createdOn>2013-02-25T17:32:55.547-08:00</createdOn>
        <isCriticalSystemObject>true</isCriticalSystemObject>
        <description>Retired</description>
    </state>
</NamedApproverApprovalTemplate>

```

```

    <iconUrl>/csa/images/categories/artifact_state/retired.png</iconUrl>
    <name>RETIRED</name>
    <displayName>Retired</displayName>
    <disabled>false</disabled>
    <categoryType> ... </categoryType>
  </state>
  ...
</NamedApproverApprovalTemplate>

```

## Retrieve organization LDAP access point information

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /organization/accessPoint   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | orgName=<organization_name><br>Required; the name of the organization for which the LDAP access point information is to be retrieved. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/accessPoint?orgName=ACCOUNTING
```

The following XML was returned:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<AccessPointInfo>
  <password>JfyPejrtsQc0J4bKDPmznlg==</password>
  <searchSubtree>>false</searchSubtree>
  <uri>ldap://localhost:389/dc=csa,dc=org</uri>
  <userSearchBase>
    ou=eConsumerUsers,ou=EnterpriseUsers
  </userSearchBase>
  <userSearchFilter>uid={0}</userSearchFilter>
  <username>cn=admin,dc=csa,dc=org</username>
</AccessPointInfo>

```

# List most requested, recently requested, or new offerings

## Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /organization/offering<br>Organization is determined by userIdentifier.  |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>queryType=[mostRequested recentlyRequested newReleases]<br/>Optional; the ten most requested, most recently requested, or newly released offerings in all catalogs for the organization are returned.</p> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>404 - Not found</p> <p>500 - Server exception</p>   |

## Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/offering?userIdentifier=90e763db3ed8fe91013ed90155e600b0&queryType=mostRequested
```

The following XML was returned in the response:

```
<ServiceOfferingList>
  <count>1</count>
  <limit>0</limit>
  <ServiceOffering>
    <id>90e763db3ed8fe91013ed9017c4e0264</id>
    <createdOn>2013-05-24T17:05:53.358-07:00</createdOn>
    <updatedOn>2013-05-24T17:06:05.287-07:00</updatedOn>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>Ready to do more today? Standardize on Red Hat Enterprise Linux and get more of everything you expect from an enterprise-class open source operating system with flexibility, efficiency and control.</description>
    <detailedDescription>Ready to do more today? Standardize on Red Hat Enterprise Linux and get more of everything you expect from an enterprise-class open source operating system with flexibility, efficiency and control.</detailedDescription>
    <iconUrl>/csa/images/offerings/Microsoft-Frontpage-icon.png</iconUrl>
```

```

<name>Enterprise Red Hat Linux Server</name>
<displayName>Enterprise Red Hat Linux Server</displayName>
<catalogItem>
  <id>90e763db3ed8fe91013ed901a9ae047d</id>
  <catalog>
    <id>90e763db3ed8fe91013ed90156b100b4</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <disabled>false</disabled>
  </catalog>
  <category>
    <id>90d96588360da0c701360da0f4cc00ec</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>APPLICATION_SERVERS</name>
    <displayName>Application Servers</displayName>
    <disabled>false</disabled>
  </category>
</catalogItem>
...
<catalogItem>...</catalogItem>
<state>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <disabled>false</disabled>
</state>
<artifactType>
  <id>90d96588360da0c701360da0e0eb001b</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <disabled>false</disabled>
</artifactType>
<disabled>false</disabled>
</ServiceOffering>
</ServiceOfferingList>

```

## orgInformation API

### Description

Use this API to get an organization's credentials.

### Base URL

`https://<host>:<port>/csa/rest`

## Details

|                |   |
|----------------|---|
| <b>URI</b>     | /orgInformation/<organization name>                   |
| <b>Method</b>  | GET   |
| <b>Returns</b> | 200 - Ok<br>404 - Not found<br>500 - Server exception |

## Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/orgInformation/my_organization
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Organization>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>My Organization</description>
  <name>my_organization</name>
  <disabled>false</disabled>
</Organization>
```

## Processinstances API

### Description

The Processinstance API is used to return execution results from HP Operations Orchestration flows. When HP Operations Orchestration makes one of these REST calls, the process instance properties are updated accordingly. When the process completes, the process notification handler passes these properties to the caller.

### Base URL

```
https://<host>:<port>/csa/rest
```

### URIs

The following URIs are appended to the base URL:

| URI   | Method | Parameters                          | Description  |
|---|--------|-------------------------------------|--|
| /processinstances/<process_instance_id>         | GET    | None                                | <a href="#">"Retrieve a process instance" on the next page</a> |
| /processinstances                               | POST   | userIdentifier                      | <a href="#">"Create a process instance" on page 114</a>        |
| /processinstances/<process_instance_id>         | PUT    | userIdentifier, scope, view, action | <a href="#">"Update a process instance" on page 116</a>        |
| /processinstances/<process_instance_id>/execute | POST   | userIdentifie                       | <a href="#">"Execute a process instance" on page 118</a>       |

## Process Instance structure

### XML structure

An abbreviated version of the XML for a process instance is provided below. Only properties that are relevant for APIs are shown; the XML returned by an API call will usually include much more than what is shown here.

```
<ProcessInstance>>
  <property>
    <isCriticalSystemObject></isCriticalSystemObject>
    <name></name>
    <paramRoleType>
      <isCriticalSystemObject></isCriticalSystemObject>
      <name></name>
      <disabled></disabled>
    </paramRoleType>
    <scope>
      <isCriticalSystemObject></isCriticalSystemObject>
      <name></name> </scope>
    <valueType>
      <isCriticalSystemObject></isCriticalSystemObject>
      <name></name>
      <disabled></disabled>
    </valueType>
    <values>
      <value></value>
    </values>
    <maxOccurs></maxOccurs>
    <minOccurs></minOccurs>
    <orderIndex></orderIndex>
    <confidential></confidential>
    <encrypted></encrypted>
    <readOnly></readOnly>
  </property>
</processDefinition>
```



```
<id></id>
<name></name>
</processDefinition>
<processInstanceState>
  <isCriticalSystemObject></isCriticalSystemObject>
  <name></name>
  <disabled></disabled>
</processInstanceState>
<context></context>
</ProcessInstance>
```

## Retrieve a process instance

### Details

|               |  |
|---------------|--|
| URI           | /processinstances/<process_instance_id><br>Where <process_instance_id> is the process instance ID. |
| Method        | GET  |
| Parameters    | None   |
| Response Body | ProcessInstance VO   |
| Returns       | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception                      |

The following was sent to retrieve a process instance:

`https://<host>:<port>/csa/rest/processinstances/90d9652b3752ad4f013752ae38cb0065`

The following XML was sent in the response:

```
<ProcessInstance>>
  <property>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>Unit Test Process Instance Property</name>
    <paramRoleType>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>INPUT</name>
      <disabled>false</disabled>
    </paramRoleType>
    <valueType>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>INPUT</name>
      <disabled>false</disabled>
    </valueType>
  <values>
```

```

    <value>Unit Test Process Instance Property Value</value>
  </values>
  <maxOccurs>0</maxOccurs>
  <minOccurs>0</minOccurs>
  <orderIndex>0</orderIndex>
  <confidential>>false</confidential>
  <encrypted>>false</encrypted>
  <readOnly>>false</readOnly>
</property>
<processDefinition>
  <id>90d9652b35f41cbc0135f41cf1310004</id>
  <name>Unit Test Process Definition 1</name>
</processDefinition>
<processInstanceState>
  <isCriticalSystemObject>>false</isCriticalSystemObject>
  <name>INITIALIZED</name>
  <disabled>>false</disabled>
</processInstanceState>
<context>Context for Unit Test Process Instance</context>
<artifactId>ID of the artifact executing the action</artifactId>
<timeout>3600</timeout>
<errorOnTimeout>>false</errorOnTimeout>
</ProcessInstance>

```

## Create a process instance

### Details

|                      |   |
|----------------------|---|
| <b>URI</b>           | /processinstances   |
| <b>Method</b>        | POST  |
| <b>Parameters</b>    | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See " <a href="#">Get userIdentifier</a> " on page 88 for the steps required to get the userIdentifier value. |
| <b>Request Body</b>  | ProcessInstance VO  |
| <b>Response Body</b> | ProcessInstance VO  |
| <b>Returns</b>       | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

The following must be provide in the request body:

- Process definition ID.
- Context string. Includes contextual information that is relevant for the caller after the process instance has been created.
- Artifact ID.
- Properties. The properties provided here will be merged with the process definition properties.

Two implicit tokens (reserved flow input variable names) are provided to process instances executed through the HP Operations Orchestration execution engine.

- CSA\_PROCESS\_ID - will be provided the value of the UUID of the process instance.
- CSA\_CONTEXT\_ID - will be provided the value of the Artifact ID. This is the artifact for which this process instance executes.

The following was sent to create a process instance:

`https://<host>:<port>/csa/rest/processinstances/?userIdentifier=90d9652b35f35a930135f35b327e00a0`

The following XML was sent in the request:

```
<ProcessInstance>>
  <property>
    <isCriticalSystemObject>>false</isCriticalSystemObject>
    <name>Unit Test Process Instance Property</name>
    <paramRoleType>
      <isCriticalSystemObject>>false</isCriticalSystemObject>
      <name>INPUT</name>
      <disabled>>false</disabled>
    </paramRoleType>
    <valueType>
      <isCriticalSystemObject>>false</isCriticalSystemObject>
      <name>STRING</name>
      <disabled>>false</disabled>
    </valueType>
    <values>
      <value>Unit Test Process Instance Property Value</value>
    </values>
    <maxOccurs>0</maxOccurs>
    <minOccurs>0</minOccurs>
    <orderIndex>0</orderIndex>
    <confidential>>false</confidential>
    <encrypted>>false</encrypted>
    <readOnly>>false</readOnly>
  </property>
  <processDefinition>
    <id>90d9652b35f41cbc0135f41cf1310004</id>
    <name>Unit Test Process Definition 1</name>
  </processDefinition>
  <processInstanceState>
    <isCriticalSystemObject>>false</isCriticalSystemObject>
    <name>INITIALIZED</name>
    <disabled>>false</disabled>
  </processInstanceState>
```

```

<context>Context for Unit Test Process Instance</context>
<artifactId>ID of the artifact executing the action</artifactId>
<timeout>3600</timeout>
<errorOnTimeout>>false</errorOnTimeout>
</ProcessInstance>

```

## Update a process instance

### Details

|                      |   |
|----------------------|---|
| <b>URI</b>           | /processinstances/<process_instance_id><br>Where <process_instance_id> is the process instance ID.  |
| <b>Method</b>        | PUT   |
| <b>Parameters</b>    | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>view=&lt;view_type&gt;&amp;scope=view<br/>Optional; used to update process instance based on pre-defined views. Possible values for <i>view_type</i> are <i>propertyinfo</i> and <i>processinstancestate</i>. With <i>processinstancestate</i>, the process instance state, return code and status can be changed.</p> <p>&lt;property_&gt;action&lt;_&gt;=merge<br/>Optional; use the <i>merge</i> option with the <i>action</i> meta tag query parameter to update only a portion of the process instance. The following the use cases are allowed:</p> <ul style="list-style-type: none"> <li>• With view=propertyinfo, specifying property_action_=merge will merge the properties specified in the request body with the existing process instance properties.</li> <li>• With view=processinstancestate, specifying action=merge will merge the state information specified in the request body with the existing process instance state.</li> </ul> |
| <b>Request Body</b>  | ProcessInstance VO  |
| <b>Response Body</b> | Updated ProcessInstance VO  |
| <b>Returns</b>       | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

Process instance state (processInstanceState) values:

- INITIALIZED
- PENDING
- READY
- ACTIVE
- COMPLETED
- ERROR
- CANCELED

Process instance return code (processReturnCode) values:

- SUCCESS
- FAILURE
- RUNNING
- TIMEOUT

## Examples

The following was sent to update propertyinfo of a process instance:

```
https://<host>:<port>/csa/rest/processinstances/90d9652b362d4ecd01362d4fb7be0f71?userIdentifier=90d9652b362d4ecd01362d4ef51e00a5&view=propertyinfo&scope=view&property_action=merge
```

The following XML was sent in the request to update a property:

```
<ProcessInstance>>
  <id>90d9652b362d4ecd01362d4fb7be0f71</id>
  <property>
    <name>Property Name</name>
    <valueType>
      <name>STRING</name>
    </valueType>
    <values>
      <value>Hello World!</value>
    </values>
  </property>
</ProcessInstance>
```

The following was sent to update the process instance state:

```
https://<host>:<port>/csa/rest/processinstances/90d9652b362d4ecd01362d4fb7be0f71?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=view&view=processinstancestate&action=merge
```

```
<ProcessInstance>>
  <id>90d9652b3752ad4f013752ae38cb0065</id>
  <processInstanceState>
    <name>COMPLETED</name>
  </processInstanceState>
</ProcessInstance>
```

The following was sent to update the process instance return code:

https://<host>:<port>/csa/rest/processinstances/90d9652b3752ad4f013752ae38cb0065?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=view&view=processinstancestate&action=merge

```
<ProcessInstance>>
  <id>90d9652b3752ad4f013752ae38cb0065</id>
  <processReturnCode>
    <name>SUCCESS</name>
  </processReturnCode>
</ProcessInstance>
```

The following was sent to update the process instance state, status and return code:

https://<host>:<port>/csa/rest/processinstances/90d9652b3752ad4f013752ae38cb0065?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=view&view=processinstancestate&action=merge

```
<ProcessInstance>>
  <id>90d9652b3752ad4f013752ae38cb0065</id>
  <processInstanceState>
    <name>COMPLETED</name>
  </processInstanceState>
  <processReturnCode>
    <name>SUCCESS</name>
  </processReturnCode>
  <status>The Process Instance has successfully completed.</status>
</ProcessInstance>
```

## Execute a process instance

### Details

|                      |   |
|----------------------|---|
| <b>URI</b>           | /processinstances/<process_instance_id>/execute   |
| <b>Method</b>        | POST  |
| <b>Parameters</b>    | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Response Body</b> | ProcessInstance VO  |
| <b>Returns</b>       | 200 - Ok<br>401 - Not authorized<br>404 - Not found<br>500 - Server exception   |

The following was sent to retrieve a process instance:

https://<host>:<port>/csa/rest/processinstances/90d9652b362d4ecd01362d4fb7be0f71/execute/?userIdentifier=90d9652b35f35a930135f35b327e00a0

## Search API

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /search  |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>query=&lt;string&gt;<br/>Required; returns search results that contain <i>string</i> in their display name or description.</p> <p>type=[all subscription service_offering service_request approval_process]<br/>Optional; default is <i>all</i>. The type of objects to search.</p> |
| <b>Returns</b>    | <p>200 - Ok<br/>401 - Not authorized<br/>500 - Server exception</p>  |

## User API

### Description

Use this API to get information related to CSA users.

### Base URL

https://<host>:<port>/csa/rest

### URIs

The following URIs are appended to the base URL:

### Request

A request is created whenever a user initiates, changes, or deletes a subscription.

| URI                                  | Method | Parameters  | Description  |
|--------------------------------------|--------|---|--|
| /user/instance/<instance_id>/request | GET    | userIdentifier  | "List service requests for subscription" on page 122 |
| /user/myrequest                      | GET    | userIdentifier, scope, detail, submitter, returnRetired, submitStartDate, submitEndDate | "List active requests for user" on page 123          |
| /user/request/count                  | GET    | userIdentifier  | "Get count of requests for user" on page 125         |
| /user/multipleRequest/cancel         | POST   | userIdentifier  | "Cancel multiple service requests" on page 126       |
| /user/multipleRequest/delete         | POST   | userIdentifier  | "Delete multiple service requests" on page 127       |

## Approval

An approval is created when the approval manager approves a request.

| URI                            | Method | Parameters   | Description                                     |
|--------------------------------|--------|--|---|
| /user/approval/count           | GET    | userIdentifier   | "Get count of approvals for user" on page 130   |
| /user/multipleApprovals/delete | POST   | userIdentifier   | "Delete multiple approval requests" on page 130 |
| /user/myapproval               | GET    | userIdentifier, scope, detail, returnRetired, approver, creationStartDate, CreationEndDate | List approvals for approver                     |

## Subscription

A subscription is created when a consumer requests a service offering and includes all of the options selected by the consumer when the subscription was initiated.



| URI                               | Method | Parameters  | Description  |
|-----------------------------------|--------|---|--|
| /user/mysubscription              | GET    | userIdentifier, scope, detail, requestor, returnRetired, creationStartDate, creationEndDate, modificationStartDate, modificationEndDate | <a href="#">"List subscriptions for user" on page 131</a>                                |
| /user/subscription/count          | GET    | userIdentifier  | <a href="#">"Get count of subscriptions for user" on page 133</a>                        |
| /user/subscription                | GET    | userIdentifier, queryType   | <a href="#">"Get list of recent or expiring soon subscriptions for user" on page 134</a> |
| /user/multipleSubscription/delete | POST   | userIdentifier  | <a href="#">"Delete multiple subscriptions" on page 134</a>                              |

## Instance

An instance is created when a request is approved and includes details about the requested services such as the status of services, IP addresses, etc.

| URI              | Method | Parameters  | Description   |
|------------------|--------|---|---|
| /user/myinstance | GET    | userIdentifier, scope, detail, requestor, returnRetired, creationStartDate, creationEndDate | <a href="#">"List instances for user" on page 136</a> |

## List service requests for subscription

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/instance/<instance_id>/request<br>Returns the list of service requests for the specified subscription. A request's details will include information on any failed action instances.                       |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Method</b>     | GET   |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

### Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/instance/90cec3a03a94d689013aa91e1b9b1218/request?userIdentifier=BFA0DB53DA414B90E04059106D1A24B5
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceRequestList>
  <count>3</count>
  <limit>0</limit>
  <ServiceRequest>
    <id>90cec3a03a667c69013a9331365f3a54</id>Â Â Â
    <createdOn>2012-10-11T22:03:27.361-07:00</createdOn>
    <updatedOn>2012-10-11T22:04:20.553-07:00</updatedOn>
    <createdBy> ... </createdBy>
    <updatedBy> ... </updatedBy>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>OctoberSampleService</description>
    <iconUrl>/csa/images/library/Icon034_48.png</iconUrl>
    <name>Wednesday Demo</name>
    <displayName>Wednesday Demo</displayName>
    <disabled>false</disabled>
    <requestState> ... </requestState>
    <requestedAction> ... </requestedAction>
    <actionInstance>
      <id>90cec3a03a667c69013a9331a2800070</id>
      <createdOn>2012-10-11T22:04:05.248-07:00</createdOn>
```

```
<updatedOn>2012-10-11T22:04:15.152-07:00</createdOn>
<action> ... </action>
<processInstance> ... </processInstance>
<actionInstanceState> ... </actionInstanceState>
<context>90cec3a03a667c69013a9331365f3a54</context>
<callbackBean>requestPorcessorActionCallbackHandler</callbackBean>
<callbackPending>false</callbackPending>
<status> ... </status>
<actionInstanceReturnCode> ... </actionInstanceReturnCode>
<archive>false</archive></actionInstance>
</ServiceRequest>
...
</ServiceRequestList>
```

## List active requests for user

### *Details*

|        |                 |
|--------|-----------------|
| URI    | /user/myrequest |
| Method | GET             |

|                   |  |
|-------------------|--|
| <b>URI</b>        | /user/myrequest  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; this user must be in the same organization as submitter, and must have the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base view]<br/>Optional; default is <i>base</i>.</p> <p>detail=basic<br/>Optional; The only valid value is <i>basic</i>.</p> <p>sbmitter=&lt;user_name&gt;<br/>Required; user name must be valid, and is the user whose request list will be returned by this call. <i>submitter</i> must be in the same organization as the user specified by <i>userIdentifier</i>.</p> <p>returnRetired=[true false]<br/>Optional; default is <i>false</i>.</p> <p>submitStartDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; requests submitted <b>on or after</b> start date and time will be included in the return. <i>T</i> serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.</p> <p>submitEndDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; requests submitted <b>before</b> end date and time will be included in the return. <i>T</i> serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.</p> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>500 - Server exception</p>  |

## Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/myrequest?userIdentifier=8a8181853810699a01381076be5400a0 &submitter=acctgconsumer
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceRequestList>
  <count>21</count>
  <limit>0</limit>
  <ServiceRequest>
    <id>8a8181853810699a01381079190800a7</id>
```

```

<objectId>8a8181853810699a01381079190800a7</objectId>
<createdOn>2012-06-21T12:16:08.073-07:00</createdOn>
<updatedOn>2012-06-21T12:16:50.787-07:00</updatedOn>
<isCriticalSystemObject>false</isCriticalSystemObject>
<description>SD2 Offering</description>
<detailedDescription>desc - SD2 offering</detailedDescription>
<iconUrl>/csa/images/library/application.png</iconUrl>
<name>request 1</name>
<displayName>request 1</displayName>
<state>
  <id>90d96588360da0c701360da0ef470038</id>
  <objectId>90d96588360da0c701360da0ef470038</objectId>
  <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
  <isCriticalSystemObject>true</isCriticalSystemObject>
  <description>Active</description>
  <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
  <name>ACTIVE</name>
  <displayName>Active</displayName>
  <disabled>false</disabled>
  <categoryType>
    <id>90d96588360da0c701360da0ef420037</id>
    <objectId>90d96588360da0c701360da0ef420037</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>ARTIFACT_STATE</name>
    <displayName>Artifact State</displayName>
    <extensible>false</extensible>
  </categoryType>
</state>
...
</ServiceRequest>
</ServiceRequestList>

```

## Get count of requests for user

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/request/count<br>Gets the number of requests for the user associated with userIdentifier. The results are grouped by request state.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |

|                |   |
|----------------|---|
| <b>URI</b>     | /user/request/count<br>Gets the number of requests for the user associated with userIdentifier. The results are grouped by request state. |
| <b>Returns</b> | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

## Cancel multiple service requests

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/multipleRequest/cancel  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See " <a href="#">Get userIdentifier</a> " on page 88 for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified requests were canceled.)<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception   |

A request can only be cancelled if its state is PENDING.

Note:

- When a pending subscription modification request is canceled, only the modification is canceled; the subscription is not changed.
- Once a subscription request has been approved, the request can no longer be canceled. The subscription, though, can be canceled.

### Example

Use the following URL:

```
https://<host>:<port>/csa/rest/user/multipleRequest/cancel  
?userIdentifier=90d965c0379fd06601379fd192b30ee6
```

The following XML was sent in the request:

```
<ServiceRequestList>  
  <ServiceRequest>  
    <id>90e72e283b05aff1013b0b2c015103a4</id>  
    <catalogItem>  
      <catalog>  
        <id>90d965c0379fd06601379fd1936a0f05</id>
```

```

        </catalog>
      </catalogItem>
    </ServiceRequest>
  <ServiceRequest>
    <id>90e72e283b05aff1013b0b2b43fc0356</id>
    <catalogItem>
      <catalog>
        <id>90d965c0379fd06601379fd1936a0f05</id>
      </catalog>
    </catalogItem>
  </ServiceRequest>
</ServiceRequestList>

```

The following XML was returned in the response. The count value indicates the number of service requests successfully canceled. A ServiceRequest element is included for each canceled service request

```

<ServiceRequestList>
  <count>2</count>
  <limit>0</limit>
  <ServiceRequest>
    <id>90e72e283b05aff1013b0b2c015103a4</id>
    ...
  </ServiceRequest>
  <ServiceRequest>
    <id>90e72e283b05aff1013b0b2b43fc0356</id>
    ...
  </ServiceRequest>
</ServiceRequestList>

```

## Delete multiple service requests

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/multipleRequest/delete  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified requests were deleted.)<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception  |

A request can only be deleted if its state is APPROVED, DENIED, or CANCELED.

## Example

Use the following URL:

```
https://<host>:<port>/csa/rest/user/multipleRequest/delete
?userIdentifier=90d965c0379fd06601379fd192b30ee6
```

The following XML was sent in the request:

```

<ServiceRequestList>
  <ServiceRequest>
    <id>90e72e283b05aff1013b0b2c015103a4</id>
    <catalogItem>
      <catalog>
        <id>90d965c0379fd06601379fd1936a0f05</id>
      </catalog>
    </catalogItem>
  </ServiceRequest>
  <ServiceRequest>
    <id>90e72e283b05aff1013b0b2b43fc0356</id>
    <catalogItem>
      <catalog>
        <id>90d965c0379fd06601379fd1936a0f05</id>
      </catalog>
    </catalogItem>
  </ServiceRequest>
</ServiceRequestList>

```

The following XML was returned in the response. The count value indicates the number of service requests successfully deleted. A ServiceRequest element is included for each deleted service request.

```

<ServiceRequestList>
  <count>2</count>
  <limit>0</limit>
  <ServiceRequest>
    <id>90e72e283b05aff1013b0b2c015103a4</id>
    ...
  </ServiceRequest>
  <ServiceRequest>
    <id>90e72e283b05aff1013b0b2b43fc0356</id>
    ...
  </ServiceRequest>
</ServiceRequestList>

```



## List approvals for approver

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/myapproval  |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p><b>userIdentifier</b>=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p><b>scope</b>=[base view]<br/>Optional; default is <i>base</i>.</p> <p><b>detail</b>=basic<br/>Optional; The only valid value is <i>basic</i>.</p> <p><b>returnRetired</b>=[true false]<br/>Optional; default is <i>false</i>.</p> <p><b>approver</b>=&lt;user_name&gt;<br/>Required; user name must be valid, and is the user whose approval list will be returned by this call. <i>approver</i> must be in the same organization as the user specified by <i>userIdentifier</i>.</p> <p><b>creationStartDate</b>=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; approval requests created on or after start date and time will be included in the return. <i>T</i> serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.</p> <p><b>creationEndDate</b>=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; approval requests created before end date and time will be included in the return. <i>T</i> serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.</p> <div> <p><b>Caution:</b> The users specified by <i>userIdentifier</i> and <i>approver</i> must be in the same organization.</p> </div> |
| <b>Returns</b>    | <p>200 - Ok</p> <p>401 - Not authorized</p> <p>500 - Server exception</p>   |

## Get count of approvals for user

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/approval/count<br>Gets the number of approvals for the user associated with userIdentifier. The results are grouped by approval result state.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

## Delete multiple approval requests

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/multipleApprovals/delete  |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.         |
| <b>Returns</b>    | 200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified approval requests were deleted.)<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception |

An approval request can only be deleted if its state is APPROVED or DENIED.

### Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/multipleApprovals/delete  
?userIdentifier=90d965c0379fd06601379fd192b30ee6
```

The following XML was sent in the request:

```
<ApprovalProcessList>
  <approvalProcess>
    <id>90e72e713a94e0ab013aae76618e0e39</id>
    <catalogItem>
      <catalog>
        <id>90d965c0379fd06601379fd1936a0f05</id>
      </catalog>
    </catalogItem>
  </approvalProcess>
  <approvalProcess>
    <id>90e2a4133a75430b013a7a1328560377</id>
    <catalogItem>
      <catalog>
        <id>90d965c0379fd06601379fd1936a0f05</id>
      </catalog>
    </catalogItem>
  </approvalProcess>
</ApprovalProcessList>
```

The following XML was returned in the response. The count value indicates the number of approval requests successfully deleted. An ApprovalProcess element is included for each deleted approval request.

```
<ApprovalProcessList>
  <count>2</count>
  <limit>0</limit>
  <ApprovalProcess>
    <id>90e72e713a94e0ab013aae76618e0e39</id>
    ...
  </ApprovalProcess>
  <ApprovalProcess>
    <id>90e2a4133a75430b013a7a1328560377</id>
    ...
  </ApprovalProcess>
</ServiceSubscriptionList>
```

## List subscriptions for user

### Details

|               |                      |
|---------------|----------------------|
| <b>URI</b>    | /user/mysubscription |
| <b>Method</b> | GET                  |

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/mysubscription  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; this user must be in the same organization as requestor, and must have the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>scope=[base view]<br/>Optional; default is <i>base</i>.</p> <p>detail=basic<br/>Optional; The only valid value is <i>basic</i>.</p> <p>requestor=&lt;user_name&gt;<br/>Required; user name must be valid, and is the user whose subscription list will be returned by this call. <i>requestor</i> must be in the same organization as the user specified by <i>userIdentifier</i>.</p> <p>returnRetired=[true false]<br/>Optional; default is <i>false</i>.</p> <p>creationStartDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; subscriptions created <b>on or after</b> start date and time will be included in the return.</p> <p>creationEndDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; subscriptions created <b>before</b> end date and time will be included in the return. Note that creationStartDate must also be specified.</p> <p>modificationStartDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; subscriptions updated <b>on or after</b> specified start date and time will be included in the return.</p> <p>modificationEndDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;<br/>Optional; subscriptions updated <b>before</b> specified end date and time will be included in the return. Note that modificationStartDate must also be specified.</p> <p>Note that in all date parameters:</p> <ul style="list-style-type: none"><li>• T serves as a separator between date and time.</li><li>• Time will default to 00:00:00 if not specified.</li><li>• Date and time are assumed to be in the time zone of the CSA server.</li></ul> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

## Examples

The following URL was sent:

https://<host>:<port>/csa/rest/mysubscription?userIdentifier=90d9652b67ss6a930135f35b327e00a0 &requestor=RnDUser

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceSubscriptionList>
  <count>6</count>
  <limit>0</limit>
  <ServiceSubscription>
    <id>90d957ea3806fa7e013807acc79000b3</id>
    <iconUrl>
      /csa/images/library/serviceOfferingDefault58.png
    </iconUrl>
    <name>MY SR</name>
    <displayName>MY SR</displayName>
    <state>...</state>
    <artifactType>
      <name>SUBSCRIPTION</name>
      ...
    </artifactType>
    <disabled>>false</disabled>
    <serviceOffering>...</serviceOffering>
    <subscriptionStatus>...</subscriptionStatus>
    <initiatingServiceRequest>...</initiatingServiceRequest>
    ...
  </ServiceSubscription>
  ...
</ServiceSubscriptionList>
```

## Get count of subscriptions for user

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/subscription/count<br>Gets the number of subscriptions for the user associated with userIdentifier. The results are grouped by subscription status.   |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

## Get list of recent or expiring soon subscriptions for user

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /user/subscription<br>Returns a list of subscriptions for the user associated with userIdentifier.   |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> <p>queryType=[expiringSoon recent]<br/>Optional; <i>expiringSoon</i> returns the user's subscriptions that will expire within the next 30 days, and <i>recent</i> returns the last five subscriptions initiated by the user.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception   |

## Delete multiple subscriptions

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/multipleSubscription/delete   |
| <b>Method</b>     | POST  |
| <b>Parameters</b> | <p>userIdentifier=&lt;user_id&gt;<br/>Required; the user ID you want to use as credentials for this API call. See <a href="#">"Get userIdentifier" on page 88</a> for the steps required to get the userIdentifier value.</p> |
| <b>Returns</b>    | 200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified subscriptions were deleted.)<br>401 - Not authorized<br>404 - Object not found<br>500 - Server exception           |

### Example

Use the following URL:

https://<host>:<port>/csa/rest/user/multipleSubscription/delete  
?userIdentifier=90d965c0379fd06601379fd192b30ee6 Â

The following XML was sent in the request:

```
<ServiceSubscriptionList>
  <ServiceSubscription>
    <id>90e72e283b05aff1013b0b2c015103a4</id>
    <catalogItem>
      <id>90cef5de3c63429f013c6489245b09a2</id>
      <catalog>
        <id>90d965c0379fd06601379fd1936a0f05</id>
      </catalog>
    </catalogItem>
  </ServiceSubscription>
  <ServiceSubscription>
    <id>90e72e283b05aff1013b0b2b43fc0356</id>
    <catalogItem>
      <id>90cef5de3c63429f013c648924bf09b4</id>
      <catalog>
        <id>90d965c0379fd06601379fd1936a0f05</id>
      </catalog>
    </catalogItem>
  </ServiceSubscription>
</ServiceSubscriptionList>
```

The following XML was returned. count indicates the number of subscriptions successfully deleted. A ServiceSubscription element is included for each deleted subscription.

To make this example more informative, note in the following return information that the first subscription is not deleted. A subscription will not be deleted during this call if the subscription was already deleted, it is not in the canceled state, permission is denied, or there is an authorization failure

```
<ServiceSubscriptionList>
  <count>1</count>
  <limit>0</limit>
  <ServiceSubscription>
    <id>90e72e283b05aff1013b0b2b43fc0356</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <disabled>false</disabled>
  </ServiceSubscription>
</ServiceSubscriptionList>
```

## List instances for user

### Details

|                   |   |
|-------------------|---|
| <b>URI</b>        | /user/myinstance  |
| <b>Method</b>     | GET   |
| <b>Parameters</b> | <p><b>userIdentifier=&lt;user_id&gt;</b><br/>Required; this user must be in the same organization as requestor, and must have the necessary permissions for the data you want to work with. See "<a href="#">Get userIdentifier</a>" on <a href="#">page 88</a> for the steps required to get the userIdentifier value.</p> <p><b>scope=base</b><br/>Optional; the only valid value is <i>base</i>.</p> <p><b>detail=basic</b><br/>Optional; The only valid value is <i>basic</i>.</p> <p><b>requestor=&lt;user_name&gt;</b><br/>Required; user name must be valid, and is the user whose subscription list will be returned by this call. <i>requestor</i> must be in the same organization as the user specified by <i>userIdentifier</i>.</p> <p><b>creationStartDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;</b><br/>Optional; instances for subscriptions created on or after start date and time will be included in the return. <i>T</i> serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.</p> <p><b>creationEndDate=&lt;yyyy-MM-ddTHH:mm:ss&gt;</b><br/>Optional; instances for subscriptions created before end date and time will be included in the return. <i>T</i> serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.</p> |
| <b>Returns</b>    | 200 - Ok<br>401 - Not authorized<br>500 - Server exception  |

### Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/myinstance?userIdentifier=90d9652b67ss6a930135f35b327e00a0 &requestor=johnsmith
```

The following XML was returned in the response:



```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceInstanceList>
  <count>6</count>
  <limit>0</limit>
  <ServiceInstance>
    <id>90d957ea3806fa7e01380f957d11070a</id>
    <name>MYSD_June 5, 2012 5:19:51 PM UTC</name>
    <displayName>MYSD</displayName>
    <state></state>
    <serviceInstanceState>...</serviceInstanceState>
    ...
  </ServiceInstance>
  ...
</ServiceInstanceList>
```

## Utilization API

### Description

Use this API to retrieve a list of resource utilization objects for the specified subscription.

### Base URL

https://<host>:<port>/csa/rest

### Details

|                   |  |
|-------------------|--|
| <b>URI</b>        | /utilization/<subscription_id><br>See <a href="#">List subscriptions for user</a> for information on obtaining subscription IDs.   |
| <b>Method</b>     | GET  |
| <b>Parameters</b> | userIdentifier=<user_id><br>Required; the user ID you want to use as credentials for this API call. See <a href="#">Get userIdentifier</a> for the steps required to get the userIdentifier value. |
| <b>Returns</b>    | 200 - Updated<br>404 - Not found<br>500 - Server exception   |

### Example use context

An organization's policy is to do resource provider selection based on available capacity for all providers. The information returned by this API can be used to determine what resources are already in use.

## Example

The following URL was sent:

`https://<host>:<port>/csa/rest/utilization/90cec3a03a667c69013a6d7f0eea2cb3`

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<UtilizationList
  <utilization>
    <resourceBindingId>90e72d913d936a9a013d937bdb570161</resourceBindingId>
    <resourcePool>
      <id>90e72d913d936a9a013d936c74040006</id>
      <objectId>90e72d913d936a9a013d936c74040006</objectId>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>Pool_1_March 22, 2013 6:46:31 PM UTC</name>
      <displayName>Pool 1</displayName>
      <disabled>false</disabled>
      <poolReference>poolref</poolReference>
    </resourcePool>
    <resourceProvider>
      <id>90e72d913d936a9a013d936c262b0004</id>
      <objectId>90e72d913d936a9a013d936c262b0004</objectId>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>Provider_1_March 22, 2013 6:46:11 PM UTC</name>
      <displayName>Provider 1</displayName>
      <disabled>false</disabled>
    </resourceProvider>
    <resourceType>
      <id>6A883A543D1248DDBB6045AD6A06BEA2</id>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <description>Megabytes of memory</description>
      <name>MEMORY</name>
      <displayName>Memory</displayName>
      <disabled>false</disabled>
    </resourceType>
    <serviceComponentId>90e72d913d936a9a013d937bdb56015a</serviceComponentId>
    <serviceInstanceId>90e72d913d936a9a013d937bdb530138</serviceInstanceId>
    <unit>
      <id>ED2CE3264F764F55877EE0CDFEE0EFB4</id>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <description>Megabytes</description>
      <name>MB</name>
      <displayName>MB</displayName>
      <disabled>false</disabled>
    </unit>
    <usage>1024</usage>
  </utilization>
```

```
<utilization> ... </utilization>
<utilization> ... </utilization>
...
</UtilizationList>
```

## Values for the detail parameter

The detail parameter has the following values:

- **Required:** Retrieves all the non-null and non-optional fields of an artifact. This includes fields with Java primitive types – byte, short, int, long, float, double, boolean and char.
- **Basic:** In addition to the Required fields of an artifact, retrieves nullable primitive types (Java wrapper classes) and Date, Time, TimeStamp and BigDecimal.
- **Standard:** In addition to the Basic fields of an artifact, retrieves all non-CSA type fields.
- **Template:** Retrieves all fields of an artifact except for artifact collection references and artifacts that are part of a containment relationship. This is same as the Full option without artifact collection references. This option is mainly used for performance reasons, because you could end up retrieving a large amount of data. For example, you can use this option if you do not want to load the base service instances when retrieving its service blueprint. Service instances are artifacts and are associated through a collection reference with its blueprint.
- **Full:** All fields except for artifacts that are part of a containment relationship. Retrieval of the internal artifacts is controlled by the scope parameter. Using this option has a performance impact (See Template option) because this option also returns artifact collection references.

**Note:** Some API calls do not support all possible values for this parameter.

## Values for the scope parameter

The scope parameter has the following values:

- **Base:** Retrieves the root entity of the artifact including all required attributes.
- **Baseplusone:** In addition to Base, retrieves all first level child artifacts.
- **Subtree:** In addition to Base, retrieves all its descendants. Using this option could have a performance impact because the information being retrieved can be very large.
- **View:** Retrieves only those attributes defined for the view specified in the *detail* parameter.

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